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DEPARTMENT OF TRADE AND COMMERCE, CANADA

THE CANADA YEAR BOOK 1952-53

THE OFFICIAL STATISTICAL ANNUAL OF THE RESOURCES,
HISTORY, INSTITUTIONS, AND SOCIAL AND ECONOMIC
CONDITIONS OF CANADA

Published by Authority of
The Right Honourable C. D. Howe,
MINISTER OF TRADE AND COMMERCE



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EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1953

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1952/53

PREFACE

The Canada Year Book, the official annual compendium of information on the economic and social development of the nation, presents extensive statistical material and analytical commentary designed to describe and co-ordinate essential elements in the progress of Canada.

The six-months postponement of the publication of the current edition, resulting in the issue of the Canada Year Book 1952-53 early in 1953, has occasioned considerable revision of the organization of the volume and of its chapter material and permitted the incorporation of certain basic statistics from the 1951 Census. The former chapter on "History and Chronology" has been deleted and the section on "Chronology" transposed to the concluding chapter, while the various subjects formerly dealt with under "Miscellaneous Administration" have been incorporated elsewhere in the volume. For example, "Public Lands" appears in Chapter I and "The Indians and Eskimos" in Chapter III on "Population", while "The Department of the Secretary of State" and "The Civil Service of Canada" are dealt with in Chapter II on "Constitution and Government". This latter chapter has also been augmented by a new feature providing a succinct analysis of the administrative functions of the various Departments of the Federal Government. The chapter, "National Accounts and Related Economic Statistics", has been transposed to the latter part of the volume to consolidate in summary fashion the economic developments depicted in the earlier portion; the "Survey of Production" remains well up in the volume as an introduction to the various chapters portraying Canada's primary and secondary industries. The survey of "Veterans Health and Welfare Services" appears as Part IV of Chapter VI, "Public Health, Welfare and Social Security". Special articles published in former editions of the Canada Year Book are listed in the concluding chapter along with "Sources of Official Information", a "Register of Official Appointments", classified "Federal Legislation, 1951-52" and "Canadian Chronology, 1867-1952".

Basic demographic statistics, compiled from the Ninth Census (1951)—Canada's comprehensive decennial stock-taking, appear in the chapter on "Population", while more detailed analyses of the Census, bearing on population, agriculture and industry, will be developed in the 1954 edition of the Year Book.

Other special features of the current edition include the following articles: "Game Fish in Canada's National Parks" (pp. 34-36); "Canada's External Relations" (pp. 101-124), surveying the nation's growth in international status and its international activities during the years 1950-52; "The Development of Public Health, Welfare and Social Security in Canada" (pp. 224-229); "Report of the Royal Commission on National Development in the Arts, Letters and Sciences" (pp. 342-345); "The National Research Council" (pp. 359-365); "The Pulp and Paper Industry in Canada" (pp. 467-475); "Post-War Expansion in Canada's Mineral Industry" (pp. 476-495); "Canadian Crude Petroleum Situation" (pp. 524-527); "The International Civil Aviation Organization and Canada's Participation Therein" (pp. 820-827); the "Grain Trade—Marketing Problems and Policies, 1949-1952" (pp. 865-869); and "Review of Foreign Trade" (pp. 922-929).

The regular chapter material has been revised considerably and brought up to date, and new statistical data covering two additional years have generally been included. In some cases, new features have been added as, for example, a list of

Canada's Foreign Trade Service representatives abroad (pp. 987-990), a discussion of the new measure of retail prices entitled "The Consumer Price Index" (pp. 1010-1014) and estimated book value of investments in all petroleum companies (pp. 1088-1089). The statistical detail of Federal Government expenditure, Mar. 31, 1949-1952 (pp. 1033-1034) has been recast; and summaries of current Federal legislation are complete to December 1952. The Appendices at the close of the volume recount legislation pertaining to the Redistribution of Federal Parliamentary Constituencies, 1952, and list the personnel of five Provincial Governments elected to power since mid-summer 1952. The Introduction to the volume serves to highlight the major economic developments of 1951 and 1952.

The co-operation of numerous officials of the various Departments of the Federal and Provincial Governments in the preparation of material for the Year Book is hereby gratefully acknowledged.

The present volume has been produced in the Information Services Division of the Bureau under the Editorship of C. C. Lingard, M.A., Ph.D., assisted by the Year Book Staff. Charts and graphs have been prepared under the direction of J. W. Delisle, Senior Draughtsman of the Bureau.

With a view to the improvement of future editions, the Editor welcomes information bearing on any errors or omissions that may have escaped notice and suggestions respecting methods of treatment.

HERBERT MARSHALL,
Dominion Statistician.

DOMINION BUREAU OF STATISTICS,
OTTAWA, Jan. 29, 1953.

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WEIGHTS AND MEASURES AND OTHER INTERPRETATIVE DATA

In Canada, as a rule, the imperial system of weights and measures is followed. An exception, however, is the ton where, unless otherwise stated, the short ton of 2,000 lb. is meant.

The following table shows the weights and measures used in Canada in connection with the principal field crops and for wheat flour and fruits:—

	<i>Pounds per Bushel</i>		<i>Pounds</i>
Grains—		Fruits (standard conversions)—	
Wheat.....	60	Apples, per barrel.....	135
Oats.....	34	Apples, per box.....	43
Barley.....	48	Pears, per bushel.....	50
Rye.....	56	Plums " ".....	50
Buckwheat.....	48	Cherries " ".....	50
Flaxseed.....	56	Peaches " ".....	50
Corn.....	56	Grapes " ".....	50
Mixed grains.....	50	Pears, per box.....	42
All others.....	60	Strawberries, per quart.....	1.25
		Raspberries " ".....	1.25
		Loganberries " ".....	1.25

Wheat Flour—

1 barrel equals 196 pounds and approximately 4.5 bushels of wheat are used in the production of a barrel of flour.

Relative Weights and Measures, Imperial and United States

The following tables of coefficients may be used to translate amounts expressed in one unit to the other.

1 Imperial pint=20 fluid ounces.	1 Imperial proof gallon=1.36 United States proof gallon.
1 United States pint=16 fluid ounces.	1 Short ton=2,000 pounds.
1 Imperial quart=40 fluid ounces.	1 Long ton=2,240 pounds.
1 United States quart=32 fluid ounces.	1 Barrel crude petroleum = 35 Imperial gallons.
1 Imperial gallon=160 fluid ounces.	
1 United States gallon=128 fluid ounces.	

FISCAL YEARS OF FEDERAL AND PROVINCIAL GOVERNMENTS

The fiscal year of the Federal Government and of each of the ten Provincial Governments ends on March 31.

Throughout the Year Book, fiscal-year figures are indicated in the text and headings of tables; in all other cases figures are for calendar years.

INTRODUCTION

Economic Developments in Canada during 1951 and 1952*

The post-war period up to 1950 was one of sustained activity and continuous growth in the Canadian economy, although toward the end of this period the over-all pressure on productive resources had slackened perceptibly as reflected in general price levels that remained fairly stable.

The even tempo of activity was abruptly interrupted by a chain of international events commencing with the invasion of South Korea in June 1950. The decision of the United Nations to resist this invasion and the policy of the NATO countries to improve their state of military preparedness led to large new demands being placed on the Canadian economy. Adjustment to this new stimulus was the principal influence underlying economic developments in the years 1951 and 1952.

The new demands which emerged were both extensive and varied. There was, first, the greatly expanded direct defence program which, at its height in the ensuing three year period, was expected to absorb close to 10 p.c. of the national product. Increased activity in other Western Nations brought substantially larger requirements for many of Canada's major exports. The changed situation gave new urgency to capital expansion and to the development of natural resources and gave rise, at least temporarily, to an upsurge of consumer purchasing and business inventory accumulation. In other words, the turn of international events had a pronounced stimulating effect throughout the Canadian economy and a major result was the acceleration in the rate of growth in the economy, reflected in the levels of capital investment and resource development, immigration and national output.

The sharpest up-turn in output occurred in the period immediately following the outbreak of hostilities in Korea. Within the 12 month period ending in the first quarter of 1951 industrial output increased by 14 p.c. This enhanced level of production was sustained in the ensuing two years. Total physical national output increased by about 5 p.c. in each successive year between 1949 and 1952, compared with an average annual increase of less than one-half this amount for the period 1946-49. It should be noted that in 1951 and again in 1952 the rise in output was, in part, the result of unusually good crops. In 1952, Canada's wheat crop reached 688,000,000 bushels or 121,000,000 bushels more than the previous record in 1928.

Increased availability of manpower helped to make possible the growth in national output in recent years. In the two years, 1951 and 1952, a total of 360,000 persons migrated to Canada. This was more than double the average annual rate of inflow from 1946 to 1950. Augmented by a higher net inflow of persons from abroad the Canadian civilian labour force increased by about 73,000 between 1950 and 1951 and by approximately the same number in 1952. Within the civilian sector of the labour force there has been a continuing transfer out of agriculture that accounts in part for the increase in the civilian non-agricultural labour force from 4,116,000 in 1950 to 4,257,000 in 1951, and to 4,403,000 in 1952. With unemployment remaining at low levels, numbers employed have roughly paralleled the changes in the labour force. Numbers on strength in the Armed Services have also been increasing.

* Prepared by the Director of the Economic Division, Department of Trade and Commerce, Ottawa.

Continuing expansion in capital facilities contributed to the growth in national output. In the last two years, outlays for capital goods accounted for about 22 p.c. of national expenditure. While part of this expenditure was needed to offset the depreciation in the existing stock of capital, a major portion represents a net expansion of productive facilities.

Further examination of the forces operating in the Canadian economy during the past two years is prefaced by a brief review of market trends during the period.

Market Trends in 1951-52.—The acute demand pressures which developed in the latter half of 1950 had reached a peak early in 1951 that can be attributed only to a very limited degree to rearmament and to directly related needs. At this time, programs for expanded defence establishments were still in the preparatory stage and therefore exerted little direct impact on western economies. The boom conditions which developed in this period appear to have reflected the public reactions to new fears of war and to projected rearmament. Consumers and businessmen alike, pre-occupied with sharply rising prices and anticipating shortages, stocked up goods well in excess of current needs. By the first quarter of 1951, retail sales in Canada had reached a level 20 p.c. in value and 10 p.c. in unit volume above the same period a year earlier. Moreover, from mid-1950 to mid-1951 the value of business inventories increased by about \$1,750,000,000 or close to 30 p.c. Part of this increase was simply a reflection of higher prices but there was also a substantial rise in the physical volume of goods held. For the year ended mid-1951, higher purchases by consumers and business stock-piling absorbed the major portion of the increase in the supply of goods and services available in the Canadian market, including that originating from higher domestic output and from a larger volume of imports.

During this period, speculative forces were sustained by a continuing deterioration in the international picture. A second wave of precautionary buying had developed late in 1950 following the setback suffered by United Nations Forces in Korea when China entered the conflict. Moreover, as the situation darkened rearmament goals kept rising. It was early in 1951 before the general magnitude of United States rearmament objectives for the next few years became known. In Canada, the defence program of \$1,000,000,000 annually, contemplated in the autumn of 1950 was raised to \$1,700,000,000 some months later.

A reaction to these inflated market demands commenced in the second quarter of 1951. While the change in the market atmosphere was international in character, anti-inflationary measures enacted by the Federal Government contributed to the easing of demand pressures. Some materials and goods remained in tight supply, particularly those needed directly in defence and supporting activity. Nevertheless, it was now becoming apparent that North American defence objectives could be attained without the degree of dislocation in the civilian economy at first envisaged. As a result, public concern over shortages began to disappear and precautionary buying quickly subsided. In so far as many persons had stocked up in anticipation of future needs, particularly in the case of durables and to some extent clothing, there followed a period of slack demand in various consumer-goods lines and in some industrial centres of Ontario and Quebec. By the last quarter of 1951, over-all retail sales in volume terms were running below those of the

previous year. In the case of business inventories, when shortages did not materialize, many firms were caught with excess stocks, a condition which was accentuated by the falling off in consumer demand and, in many lines, building up of stocks gave way quickly to liquidation.

There was, however, no general decline in activity. A growing volume of requirements for defence, for investment and for exports were important supporting factors in the economy. At the beginning of 1952, over-all production and employment levels were about the same as of the previous year. Nevertheless, the changing pattern of demand was bringing about a shift in emphasis away from the consumer and toward an improvement in Canada's industrial and defence potential.

The approximately even balance of market forces prevailing at this time continued well into 1952. However, by the middle of the year a considerable strengthening in consumer demand had taken place. The removal, early in 1952, of the special excise taxes on durables and the suspension of consumer credit regulations gave a spurt to hard goods purchasing. In addition, average personal income, in real terms, was rising significantly. Prices having roughly stabilized, consumers appeared to be showing less resistance to prevailing prices and many buyers, who in the post-Korean buying boom had bought ahead of their current needs, seemed to be returning gradually to the market for replacement needs. This pick-up in consumer demand continued throughout the second half of 1952 but was not such as to cause a resurgence of inflationary pressure. However, it did help to eliminate some of the soft spots that had previously existed and it also contributed toward some firming in over-all activity. Thus, in the second half of 1952, national production and employment levels experienced significant gains. Unemployment, throughout most of 1952 had run above the 1951 level.

Price trends throughout the two-year period reflected, in general, the changing pressures in the market but there were wide variations in the movements of prices of particular commodity groups. The inflationary influences of the post-Korean boom period had their greatest effect on internationally traded commodities. The most pronounced increases occurred in the non-dollar commodities such as rubber, tin, wool and various tropical foods, some of which more than doubled in price over the course of a six to 12 month period. The increases seemed attributable more to influences emanating from the acute international uncertainties of the time and the fear of all-out war than to the more modest needs likely to arise in a period of rearmament. Consequently, once the international situation began to stabilize and speculative forces began to subside, prices of these same commodities fell sharply. In some instances prices receded to, or below, levels prevailing in June 1950 and, subsequently, have fluctuated within a range well below the previous high points. On the other hand, prices of commodities important to Canada's export trade such as grain, wood-products, base metals and other minerals, while initially experiencing less spectacular though substantial gains, have subsequently shown less tendency to decline.

The divergence in price movements between prices of commodities important in foreign trade resulted in considerable fluctuation in Canada's terms of trade. For the year ended June 1951, import prices rose by 19 p.c. compared with a 13 p.c. rise for exports. For the subsequent 15 month period, the import index declined by 18 p.c., whereas export prices declined by only 4 p.c. Consequently, for the entire period from mid-1950 to the end of 1952 the change in the terms of trade has been significantly in Canada's favour.

General price levels in the domestic market during this period were strongly influenced by prices of international commodities but, in addition, have reflected influences originating internally. Wholesale prices showed particular sensitivity to the demand pressures of the early post-Korean period and, in the 9 months ending in March 1951, rose by 14 p.c. However, in the second quarter of 1951 the wholesale index levelled off and, after mid-1951, maintained a fairly continuous decline from a peak of 244 in July of 1951 to 221 in October 1952. On the other hand, the cost-of-living index continued upward until near the end of 1951 when it reached a position 14 p.c. above July 1950. During 1952, the consumer price level declined slightly, the index showing a 2 p.c. reduction between the beginning and end of that year.

As previously indicated, market conditions were fairly firm during 1952 and many industrial sectors experienced firm to rising price trends. Influences largely responsible for the declining trend in over-all prices included the pronounced reduction in import prices, the softening in markets for a number of Canada's agricultural products and the appreciation in the foreign-exchange value of the Canadian dollar.

Government Measures in the Defence Economy.—The demand upsurge which followed the War in Korea gave rise to two major problems on the economic front. The first was the necessary assurance of sufficient resources to carry out Canada's new defence objectives. The second was the containing of inflationary pressures and the maintenance of the maximum degree of stability consistent with the achievement of these objectives.

Measures to Assist Directly the Defence Program.—Even as Canada's rearmament objectives were taking shape it became apparent that, at least temporarily, strong competing demands would exist for many of the materials and resources needed for defence production. Thus, for the defence program to proceed without hindrance some form of prior claim on scarce resources became necessary. Legislation was enacted under which it was possible to ensure that the essential requirements of defence and defence-supporting activities would be met.

Direct controls brought into effect measures regulating the distribution of materials essential for defence. They were few in number and were applied mainly at the primary level. In only a few instances were restrictions placed on the final use of materials, the one notable case being the use of steel for less essential forms of construction (places of amusement, stores, hotels, banks, restaurants, etc.) which were subject to regulation from the autumn of 1950 to the end of 1952.

Materials designated as 'essential' and thereby subject to specific control included certain forms of iron and steel, certain forms of non-ferrous metals and non-metallic minerals, wood-pulp and newsprint, and certain chemicals and chemical compounds. With the easing of supply positions, a number of these materials were removed from the 'designated' list during 1952.

In the case of steel supplies the policy has been to effect the diversion of necessary supplies to defence purposes at the mill, warehousing or fabricating levels. Wood-pulp and newsprint were, for a time, subject to control primarily to facilitate the diversion of relatively small quantities to fill urgent European needs. In the case of all other 'essential' materials, control has been exercised through an "order approval system" involving the screening of orders placed by manufacturers with the primary processor.

In addition to procedures affecting the foregoing designated materials, provision was also made for the exercise of control as necessary over all items required in the defence effort. However, to a very large extent the desired objectives have been achieved through informal arrangement with a minimum resort to formal control orders.

Measures designed to facilitate the placement of necessary plants and other defence facilities included provision for capital assistance, special capital cost allowances or accelerated depreciation.

With respect to commodities imported from the United States, in accordance with the "Statement of Economic Principles", Canada has participated fully in both the United States Controlled Materials Plan and the United States priority regulations. Similarly, United States defence requirements in Canada have been dealt with in the same manner as Canada's own defence requirements.

In addition to regulations affecting the internal distribution of specific commodities it was found necessary to apply certain controls in the foreign trade field. Export controls were used in the case of a few commodities to protect essential domestic supplies and also as a means of controlling the destination of strategically important materials. In the case of imports, certain iron and steel items were placed under control to assist in their allocation under the priorities system and sulphur was placed under regulation to facilitate conformity with the International Materials Conference Allocation Scheme.

Measures to Restrain Inflationary Forces.—In the earlier boom phase following the outbreak of the Korean War, one objective of Government policy was the scaling down of excessive demands to a level commensurate with the productive resources available in the country.

The core of this anti-inflationary approach was the Federal Government's strict pay-as-you-go policy for the financing of the defence program. The aim was to insure that each dollar expended on defence would be counter-balanced by the withdrawal of a corresponding amount of purchasing power from private funds that would otherwise have been available for other forms of spending. In this way civilian demand was replaced by defence demand and production for civilian use by production for defence. The Federal Budgets of September 1950 and April 1951 made provision for additional revenue principally through increases in individual and corporation income-tax rates and also through the levy of special commodity taxes on cars, various household durable goods, soft drinks and tobacco products. These special levies were removed subsequently in the Budget of April 1952. In the circumstances of excessive demand which prevailed at the height of the post-Korean boom, further supplementary measures were adopted to help bring about a more even balance between demand and supply.

To assist the necessary transfer of resources to defence and to curb consumer demands, regulation of instalment buying and consumer credit was introduced in October 1950 and these regulations were tightened on subsequent occasions. To ease the pressure of demand for investment goods, a new fiscal measure was introduced in the Budget of April 1951. This measure provided that no depreciation could be charged for a period of four years on capital assets acquired after Apr. 10, 1951, excepting projects considered by the Government as essential to present national needs. Also, as a means to discourage demands for new construction, credit provisions under the National Housing Act were tightened in February

1951, one of the principal changes being to increase the size of down payments required on loans financed under the Act. In January 1951, reduction was made in the period of credit allowed on loans under the Farm Improvements Loans Act. Of more general application as an anti-inflationary measure was the undertaking by the Chartered Banks, in February 1951, to implement proposals of the Bank of Canada designed to prevent further increase in the over-all volume of bank credit. This served to counteract demand pressures at what was probably their focal point by curtailing credit for non-essential purposes and by restricting the volume of funds available for capital expansion and for the building of inventories.

The implementation of anti-inflationary measures in Canada, and like-intended programs in other countries, appeared roughly to coincide with the underlying change in the market atmosphere. Both these sets of influences contributed to the subsequent easing of demand pressures which, as previously indicated, were absent from the economy since the latter part of 1951.

With the achievement of more stable conditions in the economy these supplementary anti-inflationary measures were gradually rescinded. Following the softening in the consumer market and the sharp decline in durable goods' sales in the latter part of 1951, consumer credit regulations were relaxed in January 1952 and were suspended in their entirety in the April Budget. In May 1952, the special policies of bank credit restraint, which had been in effect since February 1951, were suspended except for the requirement of a margin of at least 50 p.c. for bank loans to carry corporate stock. In October 1951, a measure of liberalization in credit provision under the Housing Act was implemented and further measures were made effective in December 1951 and in October 1952. The deferred depreciation measure ceased to be applicable on capital goods acquired after Dec. 31, 1952.

Industry Conditions.—During 1951 and 1952, conditions in Canadian industries reflected the changing pattern of demands which has been described. The general upswing in demand commencing in the last half of 1950 and extending into 1951 was felt in virtually all segments of Canadian industry. During this period production levels in all major industry groups increased.

In the ensuing two year period, requirements for defence, for export and for capital investment kept rising and output in industries primarily dependent on these markets continued to increase. Generally speaking, this included defence industries such as aircraft and shipbuilding, metal mining and processing, wood products, other raw material industries, construction, heavy manufacturing industries and dependent service industries, although even in these groups, periods of softness were experienced in certain segments, as for example, in wood-pulp plants during 1952.

On the other hand, the falling off in the demand for various types of consumer goods commenced in the second quarter of 1951 and brought a pronounced decline in activity in related industries. This decline was accentuated as a result of the extensive accumulation of inventories which had previously taken place in anticipation of future shortages. Thus, by the third and fourth quarters of 1951, output of a number of the major consumer durable items had fallen to less than one-half their early year levels. The clothing and textile industries also underwent a sharp decline in activity. In the case of this industry group, the market recession was world-wide in character. Thus, in addition to a falling off in market demand, Canadian producers were also faced with increased competition from abroad. By

the first quarter of 1952, production of clothing was 15 p.c. below the level of the same period in 1951. In other textiles a year-to-year comparison in the second quarter showed a 30 p.c. drop.

Throughout 1952, influences contributing to a strengthening of demand for consumer goods included the continuing increase in money incomes, a moderate decline in the consumer price level, the suspension of consumer credit regulations and the removal of the special commodity taxes in the April Budget. As consumer purchasing increased, excessive inventories were gradually adjusted and by the latter part of 1952 production in consumer goods industries had increased substantially above the depressed levels of the previous period. By the last quarter of 1952, activity appeared to be at a generally high level throughout all segments of Canadian industry except perhaps in logging where the current season's cut was expected to be considerably below that of 1951.

During the 1951-52 period, Canadian agriculture was subject to unusually divergent influences. In 1951, western grain producers obtained much better than average yields but owing to unusually bad weather conditions much of the grain was of low grade and a large portion of the crop was not harvested until the next spring. This was followed by the new record crop of 1952. Throughout these two years overseas demand for Canadian wheat and other grain remained strong owing, in part, to poor crops in other important export countries. In addition, large amounts of feed grain were marketed in the United States. Transportation and handling facilities were not adequate to move the huge export surpluses on hand and this constituted the principal limiting factor to the volume of export sales. As a result there was a substantial increase in grain stocks in Canada.

Meanwhile, Canada's live-stock industry suffered a major setback with the outbreak of foot-and-mouth disease, in Saskatchewan, in February 1952. This brought an automatic closing of the United States border to all Canadian live stock and related products, involving the loss of a market which, in recent years, had absorbed up to 20 p.c. of Canada's cattle and beef production. At the same time, hog marketings increased greatly, resulting in a substantial surplus of meat in Canada during 1952. The beef surplus was, to some extent, alleviated by an arrangement whereby the United Kingdom bought Canadian beef in place of the New Zealand product which, in turn, was sold in the United States market. By the end of 1952, about 65,000,000 lb. of beef had been shipped to the United Kingdom under this arrangement. To assist the Canadian industry over this difficult period, the Agricultural Prices Support Board provided support to both pork and beef by purchasing surplus supplies at designated prices and it was announced that support for beef prices would continue until the United States embargo against Canadian live stock was lifted.

Mainly as a result of the good crops in 1951, Canadian farm income rose by 32 p.c. over that of the previous year. In 1952, the rise in crop production was more than offset by lower prices for agricultural products and increased operating costs and it was estimated that farm income in 1952, though remaining well above the 1950 level, would be a little below that realized in 1951.

The Defence Program.—The building up and equipping of Canada's Armed Services, together with the provision of a considerable volume of equipment for other NATO countries, were among the principal new demands on the country's resources during 1951 and 1952. Actual outlays for direct defence purposes increased from \$493,000,000 in 1950 to three to four times this amount in 1952. Such outlays

comprised about 2.75 p.c. of the gross national product in 1950 and about 8 p.c. in 1952. Of the total expenditure for the period roughly 33 p.c. was required for military pay and allowances and for administrative and service expenses, the remainder going for procurement of equipment and supplies and for construction.

The build-up of the program, of necessity, took time, for many types of equipment deliveries had to await the perfecting of new designs, tooling up and, in some cases, the erection of new plants. Thus, the year 1951 was primarily one of preparation, of designing and constructing plant and equipment, of determining types of military goods to be produced, of undertaking development work and of placing some of the more important contracts. Government measures enacted to facilitate the creation of the necessary capacity and to ensure availability of required materials have been referred to at pp. xiv-xvi. Meanwhile, the purchasing of various items requiring no special facilities proceeded.

During 1952, many specialized facilities were completed and the production commenced of various more complicated items. An outstanding example is the plant making Orenda jet engines, which was opened in September 1952. Rapid progress is being made in setting up capacity for producing such Orenda components as fuel systems, combustion chambers, light metal castings, and turbine blading. In shipbuilding, Canada is able to produce the propulsion machinery for its own escort vessels. Under the weapons program, new facilities were created for the manufacture of various U.S.-type equipments. In the electronics field also, Canada is keeping abreast of the rapidly changing situation, and now possesses capacity to turn out such items as walkie-talkies, gunfire control equipment, and subminiature tubes.

The major impact of defence purchasing has been concentrated in but few industries. Of total procurement outlays for 1952, aircraft accounted for 27 p.c., construction 22 p.c., shipbuilding 8 p.c., clothing and other textiles 10 p.c. and electronics, weapons, automotive equipment, ammunition and explosives taken together totalled 22 p.c. As the program progresses, major equipment items such as aircraft, ships, guns, ammunition and electronics will comprise an increasing proportion of total procurement.

The influence exerted by defence purchasing on Canada's balance of payments position altered significantly during the years 1951 and 1952. This, of course, excludes the United States content of orders filled by private contractors. The value of Canadian Government defence orders placed in the United States in 1951 was nearly two and a half times as large as United States orders placed in this country. The position was, however, greatly altered in 1952 and the totals for the two years were not far from being equal. This development took place for several reasons: the United States was becoming increasingly aware of Canadian facilities, while Canada was able to depend more fully upon its own sources of supply and, in some cases, to reduce or cancel orders already placed in the United States. During 1951, in particular, the United States was the only available source for U.S.-type equipment but with Canada's increasing capacity to supply its own needs the decision was made to use the Orenda engine produced by A. V. Roe (Canada) Limited to replace the U.S.-J 47 in the F-86E fighters.

Considering the impact of the defence program on the economy as a whole, it is apparent that expanding defence requirements absorbed a major portion of the increase in national output in the two years under review. Nevertheless,

it is of significance that in 1952 there was an increase in the volume of exports and in capital investment and a slight improvement in per capita consumption. The outstanding feature of the defence program is in its specialized technical aspects rather than in its requirements of manpower, materials and productive capacity in the more general sense.

Foreign Trade.—Events which followed the outbreak of the conflict in Korea had a pronounced stimulating effect on Canada's trade with other countries. A major portion of the new stimulus to activity in the Canadian economy had its origin in the foreign market. Rising production levels in other countries meant larger requirements of many raw and processed materials for which Canada is an important and economic source of supply. The accompanying rise in activity and in the demand for goods in Canada resulted, in turn, in a heavier flow of imports. Nevertheless, the respective trends of exports and imports followed a somewhat different course in the period since 1950.

In response to urgent demands from abroad, Canadian exports rose steadily during 1951 with availability of supply being the main limiting factor to the volume shipped. The value of merchandise exports in 1951 reached \$3,963,000,000, 26 p.c. above the 1950 figure. Higher prices and more unit volume contributed about equally to this rise. In 1952 the general pressure of demand for raw materials slackened somewhat as evidenced by the levelling and, in some instances, decline in prices but the foreign market continued to absorb virtually all the available supply of important export items. Thus, sales abroad continued to mount and for the full year the value of exports showed an increase of 10 p.c. over the same period in 1951. With average prices being unchanged, the physical volume of shipments also rose by 11 p.c. or approximately at the same rate of increase realized in the preceding year.

Throughout the two-year period under review larger shipments of grain, metals and wood products made up nearly all the increase in the total value of exports. Commencing in the latter months of 1951 and continuing through 1952, exports of automotive products increased sharply, particularly to Latin-American countries, and by the end of 1952, shipments of defence equipment to the United States were of increased importance.

The 1950-51 boom brought a much quicker expansion in imports than in exports. For one thing supply limitations did not exert the same restrictive effects. In the United States, by far the largest source of supply, soaring production levels had in many fields kept pace with market demands. Even in instances where supplies remained tight, as in the case of steel, Canadian purchases increased markedly. The removal of all the remaining emergency exchange import controls on Jan. 1, 1951, also contributed to the overflow of Canadian demand into the United States market. Thus, in the first six months of 1951, Canadian purchases abroad were 45 p.c. above the corresponding period of 1950. However, in the third quarter of the year the scramble after goods in the foreign market began to subside. For the year 1951 the value of merchandise imports stood at \$4,085,000,000, 29 p.c. above the 1950 level (13 p.c. higher in terms of unit volume).

The easing in purchasing from abroad, which commenced in the latter half of 1951, continued well into 1952 and reflected the over-building of inventories during the earlier buying splurge and also the decline in demand pressures in Canada. However, following the firming in the domestic market, import levels again started

to move upward in the latter months of the year. For 1952, the value of imports was 1 p.c. below that of 1951. However, for the same period, average prices of imported goods were 12 p.c. lower so that, in unit volume terms, foreign buying was again significantly higher.

Because of the sharper rise in imports than in exports during the 1950-51 boom period, in the calendar year 1951 a deficit on Canada's merchandise trade account was encountered for the first time in many years. Adding an increased deficit on non-merchandise items there was an over-all deficit on current international account of \$524,000,000. However, in 1952, the continued increase in the value of exports and the decline in imports realized a sizable balance on merchandise account sufficient to offset, approximately, the continuing deficit on invisible items. As a result of the rising trend of imports late in 1952 this favourable trend in the current account position appeared to have been reversed at least temporarily.

Meanwhile, the international capital position was also changing. The net inflow of capital into Canada which had reached the record amount of more than \$1,000,000,000 in 1950 declined to little more than 50 p.c. of this figure in 1951 which was, nevertheless, roughly sufficient to offset the deficit on current account. However, for 1952, the considerable volume of investment funds still moving into Canada were more than counter-balanced by funds moving out.

The foregoing changes in current and capital account were accompanied during most of the period by an appreciation in the foreign exchange value of the Canadian dollar, which rose from a discount of more than 6 p.c. on the American dollar in June 1951 to a premium of more than 4 p.c. in September 1952.

During the two year period under review, Canada's pattern of trade, area-wise, gradually moved away from the more evenly balanced position with major trading areas which had existed in 1950. The decline in the over-all merchandise balance in 1951 was associated with an even larger increase in the deficit with the United States (a \$479,000,000 deficit in 1951 compared with \$80,000,000 in 1950). On the other hand, the surplus with the Sterling Area rose. British purchases from Canada were considerably higher (particularly lumber and metals), whereas strong competing demands for United Kingdom products, coupled with a softening in the Canadian market for various consumer goods, particularly automobiles, tended to limit British sales to this country. In 1952, Canada's merchandise position with the United States remained about the same as in 1951; however, the surplus in trade continued to grow with the Sterling Area and with other non-dollar countries. In 1952 exports to countries, other than to the United States and the Sterling Area, increased by 33 p.c. over 1951, whereas in the same period imports from these countries decreased by 7 p.c.

The rise in exports to sterling countries in 1951-52 was realized notwithstanding a new exchange crisis encountered by the Sterling Area. The closing months of 1952 saw a major improvement in the foreign balance position of the Sterling Area and the measures taken further to restrict purchasing from dollar areas were beginning to reflect themselves in Canadian export figures. Throughout the period a collective approach to mutual problems of Commonwealth trade was taken by such means as the semi-annual meetings of the United Kingdom-Canada Continuing Committee on Trade and Economic Affairs, the meetings of the Commonwealth Finance Ministers, in January 1952, and the Commonwealth Economic Conference in November of the same year.

Canada took part in the large scale tariff negotiations under the General Agreement on Tariffs and Trade held at Torquay, England from September 1950 to April 1951 and also in the meetings held at Geneva in the autumn of 1951 and again in October 1952. Through its role in this and other international organizations and also in its relations with other countries, Canada's efforts were directed toward the removal of barriers to the free movement of goods and toward the achievement of a sound and dynamic pattern of world trade.

Capital Expenditure and Resources Development.—A notable feature of the post-war Canadian economy has been the large volume of capital expenditure on durable physical assets, such as manufacturing establishments and office buildings, machinery and equipment, schools and roads and residential housing. Private and public investment amounted to \$4,581,000,000 in 1951 and was estimated at \$5,181,000,000 for 1952. Of these totals, capital expenditure by federal, provincial and municipal governments amounted to \$774,000,000 in 1951 and to \$957,000,000 in 1952. In physical terms investment rose 9 p.c. in 1951 and 10 p.c. in 1952. Over the two year period, new construction accounted for 58 p.c. of total investment and machinery and equipment accounted for the remainder.

This represented about as large a volume of investment as the economy was capable of supporting under the conditions existing in 1951 and 1952. In physical size it was the largest on record. In terms of percentage of the gross national product which it represented, the investment program of 1929 was larger but the wave of investment which reached its peak in 1929 occurred at a time when there was no large rearmament program in progress and when general demand for goods and services was exerting less strain upon the economy than in recent years.

Investment in capital goods plays a vital role in maintaining and increasing the productive efficiency and capacity of the nation. In recent years about 50 p.c. of all capital expenditure has been required to offset depreciation and obsolescence. Large capital expenditure has been required to maintain employment and efficiency in the face of constantly changing patterns of domestic and international trade. With population rising, heavy capital expenditure has been required to utilize new manpower becoming available and to provide for the growing need for public works, services and housing. An indication of the rate at which Canada's productive potential has been increasing is provided by statistics on the rise in the nation's output of goods and services over a period of years. From 1947 through 1952, Canada's capital expenditure was high, its productive capacity was almost fully employed, and the gross national product, in real terms, rose by an average of about 5 p.c. per annum.

Composition of the Investment Program.—The investment programs of 1951 and 1952 were marked by the very large shifts which took place in their composition. This can be seen by recalling the conditions of 1950. In that year, while the volume of investment was very high, it was only slightly above the previous year; most of the post-war shortages of labour and materials had been relieved; resources development, as reflected by the rapidly rising capital expenditure on utilities and mining, was assuming greater importance. On the other hand, the post-war wave of expansion in light and in heavy manufacturing was subsiding and investment in these sectors declined for the second successive year. Expansion in housing, trade, finance and commercial services, retarded by the War and by post-war shortages, was proceeding rapidly. Government capital expenditure was rising only moderately and was marked by emphasis upon non-defence projects, such as roads.

This situation was changed radically over the two years following, mainly as a result of the outbreak of hostilities in Korea. Western rearmament created heavy additional demands for many of the raw and processed materials produced in Canada and placed new urgency on the development of resources and expansion of processing facilities. Moreover, Canada's own rearmament program, besides involving the construction of military installations, called for the production of a wide variety of military supplies on a scale which, in some cases, exceeded existing plant capacity, thereby calling for large capital expenditure.

Under these additional stimuli, capital expenditure on resources development continued to rise in 1951 and 1952, while that on light manufacturing continued to fall. The rate of government investment was accelerated and the declining trend of investment in heavy manufacturing was sharply reversed. Investment declined in housing and services not immediately essential for defence. The magnitude of these changes from 1950 to 1952 are reflected in the following figures, all reduced to constant 1950 dollars.

Capital expenditure by the Federal Government departments increased from \$127,000,000 in 1950 to \$320,000,000 in 1952, a rise of 152 p.c.; that by heavy manufacturing industries rose 145 p.c. from \$262,000,000 to \$642,000,000; that for mining, quarrying and oil wells rose 47 p.c. from \$119,000,000 to \$175,000,000; and that by utilities rose 42 p.c. from \$720,000,000 to \$1,025,000,000. On the other hand, capital expenditure for trade, finance, commercial services and institutional services fell 16 p.c. from \$605,000,000 in 1950 to \$505,000,000 in 1952; that of light manufacturing fell 12 p.c. from \$179,000,000 to \$159,000,000; and that for housing fell 15 p.c. from \$845,000,000 to \$710,000,000.

These shifts in the pattern of investment were facilitated by various measures (referred to at pp.xiv-xvi), designed to discourage less essential work and to ensure the availability of resources for projects of importance in Canada's preparedness program.

Housing.—As indicated before, the volume of residential construction declined considerably during the period under review but was again increasing by the latter half of 1952. Completions dropped from 92,000 dwellings and conversions in 1950 to 85,000 in 1951 and to an estimated 70,000 in 1952. The decline in house building activity first became evident in June 1951, when the rate of housing starts fell below that of the same month of the previous year. The rate of starts remained relatively low until a year later when, in June 1952, it rose to a point only slightly below that of June 1950. While starts in the last half of 1952 were well above the last half of 1951, this increase came too late to be fully reflected in the number of completions in 1952.

Various factors contributed to these changes in the volume of house building including the changing circumstances with respect to the supply of mortgage funds, availability of serviced land, building costs and public attitude concerning the future availability of materials. About two out of every five houses started in recent years have been constructed with financial assistance of some kind from the Federal Government, mainly under the National Housing Act, so that changes in governmental policy had a bearing on the level of house building activity. As a part of the Government's policy to preserve national and manpower resources for essential defence purposes, regulations were introduced early in 1951 which had the effect of increasing down payments on homes financed under the National Housing Act. Beginning in June 1951, it became apparent that the economy could support

a higher level of house building activity and the Government adopted a series of measures to encourage residential construction. The statutory interest rate on mortgages coming under the National Housing Act was raised, additional credit arrangements for the construction of rental projects were provided for, and the maximum size of mortgage permitted on homes for home ownership was increased.

Review of Current Expansion.—The significance of the investment programs of 1951 and 1952 can be further illustrated by a review of how some of the more important projects under way contributed to Canada's productive capacity and to the opening up of hitherto undeveloped areas.

The development of Canada's mineral resources proceeded on a broad front. The petroleum industry continued its rapid development originating in the discovery of new oil fields in Alberta in 1947 and 1948. Daily output of crude petroleum rose from 23,000 bbl. in 1945 to 80,000 bbl. in 1950 and to 160,000 bbl. in 1952. Rapid strides were made in the creation of facilities required to bring Ontario, British Columbia and parts of the United States within marketing range. In December 1950, the first crude oil reached the head of the Great Lakes via the new Inter-provincial pipeline and, subsequently, a new fleet of tankers was built to forward the oil to Sarnia, Ont. In 1952, construction was begun on the Transmountain pipeline which will carry Alberta oil to the West Coast. As a result of these and other developments in the marketing and refining of petroleum, about 33 p.c. of Canada's requirements were being met from domestic sources at the end of 1952 compared with 20 p.c. in 1950.

Output of iron ore rose from 3,400,000 tons in 1950 to 5,500,000 tons in 1952 owing mainly to expansion projects in Ontario and Newfoundland. Of even greater potential importance are deposits being opened up on the Labrador-Quebec border. This latter project, involving construction of a 360-mile railroad south to the Gulf of St. Lawrence, is expected to yield 10,000,000 tons or more of high grade ore a year and to raise Canada to the rank of a major net exporter.

Numerous discoveries of ore bodies and strong markets combined to make 1951 and 1952 years of significant expansion in a wide range of other minerals. The deposit of titanium bearing ilmenite at Allard Lake in the Province of Quebec was opened up and a refinery was erected at Sorel, Que.; this is probably the largest known deposit of ilmenite and its development has made Canada a major producer. Zinc mining and refining projects under way or recently completed in British Columbia, Manitoba, Quebec and Nova Scotia will increase potential output by about 85,000 tons over 1950. A large new nickel-copper-cobalt mine was being opened up at Lynn Lake, Man.; this project involves construction of a 155-mile railway and erection of a refinery at Fort Saskatchewan, Alta. In addition, a large number of important developments took place which added to productive capacity in asbestos, uranium, tungsten, cobalt and other minerals.

The expansion of the nation's production potential hinges, to some extent, on the availability of large supplies of low cost hydro-electric power. In 1951, installed capacity of electric generating stations was increased by 881,000 h.p. to a total of 13,343,000 h.p. New plants and extensions to existing stations under construction in 1952 were expected to bring total installed capacity to over 15,000,000 h.p. by the end of 1953.

Part of the new power capacity being installed was in direct conjunction with expansion in the refining of aluminum and other base metals. Two major aluminum refining projects were under way. The largest of these is located at Kitimat, a hitherto undeveloped area of British Columbia, and will be capable of an output of 90,000 tons of aluminum when the first stage of the project is completed. This, together with a project under way in the Province of Quebec will add 35 p.c. to Canada's aluminum refining capacity.

One of the most important developments in heavy manufacturing was the major expansion program undertaken by the primary iron and steel making industry which was scheduled for completion by the end of 1953. Pig iron capacity was being raised by 35 p.c. and steel making capacity by 25 p.c. In conjunction with this program, commensurate additions were being made to Canada's steel rolling mill capacity.

A number of other important developments in heavy manufacturing involved the processing of Canada's forest and mineral resources and the production of goods required for defence. Large plants were under construction in Alberta and Ontario to produce a wide variety of chemicals and synthetic fibres from products of petroleum and wood. Plants were being erected to recover sulphur from natural gas, smelter fumes and iron pyrites. A large new pulp and paper mill was completed in British Columbia during 1952, and a number of existing ones were expanded.

Of the developments in manufacturing directly related to defence, the most notable was the expansion of Canada's aircraft industry to produce jet fighter aircraft and jet engines. This involved not only capital expenditure on aircraft and engine plants but also the construction or adaptation of facilities by numerous concerns to produce a wide range of complex component parts, the manufacture of which called for a high degree of precision. Electronic equipment for the defence program necessitated significant expansion in the heavy electrical industry. Ship-yards, gun and explosive plants were also expanded.

The foregoing description gives a broad indication of the new productive capacity being created in the Canadian economy. It depicts forcibly that 1951 and 1952 have been years of exceptional activity and basic industrial growth. International events of this period have placed new emphasis on Canada's importance as a source of supply in the Western world. The growth thus stimulated has been concentrated in the building up of new capacity for the production of raw and processed materials. In addition, however, the production of highly complicated products has been embarked upon. This expansion has contributed to the greater diversification of Canadian industry and will undoubtedly provide renewed impetus to development in secondary and service industries in the years ahead.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA, 1871-1951

NOTE.—In the following summary, the statistics of fisheries (1871-1911), trade, shipping, the Post Office, the public debt, revenue and expenditure, and the Post Office and Government savings banks relate to the fiscal years ended June 30 up to 1906; subsequently to years ended Mar. 31, except in the case of trade, where, as indicated by footnotes, calendar-year figures are given for certain later years. Agriculture, dairying, fisheries (from 1931), mineral, manufacturing, banking, insurance, loan and trust companies, construction, road-transportation, vital, hospital, and immigration statistics relate to the calendar years, and railway statistics to the years ended June 30, 1871-1911, and to the calendar years 1921-51. Canal statistics are those of the navigation seasons. Telegraph statistics relate to the fiscal years for Government lines and to the calendar years for other lines.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA

NOTE.—The interpretation of the symbols used in the tables will be found facing p. 1 of this volume.

Item		1871	1881	1891	1901	1911
Population—						
1	Newfoundland..... No.	...	...	...	...	...
2	Prince Edward Island..... "	94, 021	108, 891	109, 078	103, 250	93, 728
3	Nova Scotia..... "	387, 800	440, 572	450, 396	459, 574	492, 338
4	New Brunswick..... "	285, 594	321, 233	321, 263	331, 120	351, 889
5	Quebec..... "	1, 191, 516	1, 359, 027	1, 488, 535	1, 648, 898	2, 005, 776
6	Ontario..... "	1, 620, 851	1, 926, 922	2, 114, 321	2, 182, 947	2, 527, 292
7	Manitoba..... "	25, 228	62, 260	152, 506	255, 211	461, 394
8	Saskatchewan..... "	...	...	...	91, 279	492, 432
9	Alberta..... "	...	...	...	73, 022	374, 295
10	British Columbia..... "	36, 247	49, 459	98, 173	178, 657	392, 490
11	Yukon Territory..... "	...	...	...	27, 219	8, 512
12	Northwest Territories..... "	48, 000	56, 446	98, 967	20, 129	6, 507
	Canada..... "	3, 689, 257	4, 324, 810	4, 833, 239	5, 371, 315	7, 206, 643
13 Households²..... No.						
		..	800, 410	900, 080	1, 058, 386	1, 482, 980
Immigration—						
14	From United Kingdom..... No.	..	17, 033	22, 042	11, 810 ⁴	144, 076
15	From United States..... "	..	21, 822	52, 516	17, 987 ⁴	112, 028
16	From other countries..... "	..	9, 136	7, 607	19, 352 ⁴	75, 184
	Totals..... "	27, 773	47, 991	82, 165	49, 149 ⁴	331, 288
Vital Statistics—²						
17	Births (live) ⁵ No.	..	..	..	..	..
	Rates per 1,000 population.....	..	..	..	..	..
18	Deaths, all causes ⁵ No.	..	..	..	..	..
	Rates per 1,000 population.....	..	..	..	..	..
19	Marriages..... "	..	..	..	..	..
	Rates per 1,000 population.....	..	..	..	..	..
20	Divorces..... No.	4	7	10	19	57
Health and Welfare—						
HOSPITALS—⁶						
Public Hospitals—						
21	Hospitals..... No.	..	..	..	..	..
22	Bed capacity ⁸..... "	..	..	..	..	..
23	Patient days ⁹..... "	..	..	..	..	..
24	Expenditure ¹⁰..... \$	..	..	..	..	..
Tuberculosis Sanatoria—						
25	Sanatoria..... No.	..	..	..	..	..
26	Bed capacity..... "	..	..	..	..	..
27	Patient days..... "	..	..	..	..	..
28	Expenditure ¹⁰..... \$	..	..	..	..	..
Mental Institutions—						
29	Hospitals..... No.	..	..	..	..	..
30	Bed capacity..... "	..	..	..	..	..
31	Patient days..... "	..	..	..	..	..
32	Expenditure ¹⁰..... \$	..	..	..	..	..
33	FAMILY ALLOWANCES..... \$	..	..	..	..	..
34	OLD AGE PENSIONS ¹¹..... \$	..	..	..	..	..
35	PENSIONS FOR THE BLIND ¹¹..... \$	..	..	..	..	..
36	UNEMPLOYMENT INSURANCE..... \$	..	..	..	..	..
Criminal Statistics—¹²						
37	Convictions, indictable offences.. No.	..	3, 509 ¹³	3, 974	5, 638	11, 188
38	Convictions, non-indictable offences "	..	30, 365 ¹³	33, 643	36, 510	100, 633

¹ These are intercensal estimates adjusted after the 1951 Census.

² Exclusive of the Territories.

³ Exclusive of Newfoundland.

⁴ Year ended Mar. 31.

⁵ By place of occurrence prior to 1941; by place

of residence 1941-50.

⁶ For reporting hospitals only; private and federal hospitals excluded.

⁷ Figures

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

NOTE.—The interpretation of the symbols used in the tables will be found facing p. 1 of this volume.

1921	1931	1939	1941	1943	1949	1950	1951	
88,615	88,038	94,000	95,047	91,000 ¹	345,000 ¹	351,000 ¹	361,416	1
523,837	512,846	561,000	577,962	606,000 ¹	94,000 ¹	96,000 ¹	98,429	2
387,876	408,219	447,000	457,401	463,000 ¹	629,000 ¹	638,000 ¹	642,584	3
2,360,510	2,874,662	3,230,000	3,331,882	3,457,000 ¹	508,000 ¹	512,000 ¹	515,697	4
2,933,662	3,431,683	3,708,000	3,787,555	3,915,000 ¹	3,882,000 ¹	3,969,000 ¹	4,055,681	5
610,118	700,139	726,000	729,744	723,000 ¹	4,378,000 ¹	4,471,000 ¹	4,597,542	6
757,510	921,785	906,000	895,992	838,000 ¹	757,000 ¹	768,000 ¹	776,541	7
588,454	731,605	786,000	796,169	785,000 ¹	832,000 ¹	833,000 ¹	831,728	8
524,582	694,263	792,000	817,861	900,000 ¹	885,000 ¹	913,000 ¹	939,501	9
4,157	4,230	5,000	4,914	5,000 ¹	1,113,000 ¹	1,137,000 ¹	1,165,210	10
8,143	9,316	12,000	12,028	12,000 ¹	8,000 ¹	8,000 ¹	9,096	11
					16,000 ¹	16,000 ¹	16,004	12
8,787,949	10,376,786	11,267,000	11,506,655	11,795,000 ¹	13,447,000 ¹	13,712,000 ¹	14,009,429	
1,897,110	2,275,171	..	2,706,089	..	..	..	3,420,822 ¹³	13
43,772	7,678	3,011	435	1,116	20,737	12,669	31,559	14
23,888	15,195	5,654	6,594	4,401	7,756	7,821	7,755	15
24,068	4,657	8,329	2,300	2,987	56,724	53,322	155,077	16
91,728	27,530	16,994	9,329	8,504	95,217	73,912	194,391	
..	240,473	229,468	255,224	283,423	366,139	371,071	..	17
..	23.2	20.4	22.2	24.0	27.1	27.1	..	..
..	104,517	108,951	114,639	118,531	124,047	123,789	..	18
..	10.1	9.7	10.0	10.0	9.2	9.0	..	..
..	66,591	103,658	121,842	110,937	123,877	124,845	..	19
..	6.4	9.2	10.6	9.4	9.2	9.1	..	..
558	700	2,068	2,461	3,263	5,373	5,163	..	20
..	587 ⁷	609	613	594	719 ⁸	741 ⁸	778 ⁸	21
..	43,247 ⁷	51,628	53,445	50,544	57,885 ⁸	61,415 ⁸	68,674 ⁸	22
..	9,657,517 ⁷	11,923,695	13,393,506	12,803,262	16,477,607 ⁸	17,383,569 ⁸	19,798,448 ⁸	23
..	38,309,400 ⁷	..	..	59,402,798	146,866,796 ⁸	162,714,287 ⁸	196,203,373 ⁸	24
..	31 ⁷	38	47 ⁷	47	64	74 ⁸	74	25
..	6,044 ⁷	8,906	9,304 ⁷	9,602	12,857	15,617 ⁸	18,146	26
..	1,924,289 ⁷	3,002,606	3,227,640 ⁷	3,245,099	4,321,519	4,941,283 ⁸	5,253,389 ⁸	27
..	5,329,393 ⁷	6,882,443	7,753,229	8,619,449	19,166,132	22,099,695	26,815,147	28
..	52 ⁷	53	54 ⁷	54	59	61	62	29
..	29,374 ⁷	38,085	38,800 ⁷	41,092	42,395	43,250	45,326	30
..	10,662,343 ⁷	15,478,080	16,205,635 ⁷	16,688,530	18,774,505	19,223,090	21,791,960	31
..	13,235,767 ⁷	15,449,122	14,725,760 ⁷	16,076,787	35,383,231	39,963,941	44,943,613	32
..	..	..	..	..	270,909,778	297,514,084	309,465,461	33
..	7,050,924	28,885,860	28,472,475	30,496,570	64,232,210 ⁸	89,662,203	99,268,006	34
..	..	859,853	1,067,239	1,185,018	2,532,074 ⁸	3,536,730	3,901,109	35
..	..	..	..	875,385	52,876,524	..	..	36
16,169	31,542	53,125	42,646	41,752	41,661 ¹³	42,624 ¹³	..	37
155,376	327,778	431,203	547,556	465,315	980,486 ¹³	1,183,991 ¹³	..	38

derived from 1931 Census report. ⁸ Bassinets for newborn excluded.cluded. ¹⁰ Not all hospitals shown above furnished financial reports.¹² Year ended Sept. 30. ¹³ 1886 figures; first year available.⁹ Days' stay of newborn ex-cluded. ¹¹ Federal contribution only.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
Education—						
1	Total enrolment ¹ No.	803,000	891,000	993,000	1,092,633	1,361,205
2	Average daily attendance ² "				669,000	870,532
3	Teachers ³ "	13,559	18,016	23,718	27,120	40,516
4	Public expenditure on..... \$	..	..	..	11,044,925	37,971,374
Survey of Production—						
5	Net value ⁴..... \$	..	..	..	..	..
Agriculture—⁴						
6	Area of occupied farms..... acre	36,046,401	45,358,141	58,997,995	63,422,338	108,968,715
7	Improved lands..... "	17,335,818	21,899,181	27,729,852	30,166,033	48,733,823
8	Cash income from the sale of farm products..... \$,000	..	..	..	..	..
FIELD CROPS—⁶						
9	Wheat..... bu.	16,723,873	32,350,269	42,144,779	55,572,368	132,077,547
	"..... \$	16,993,265	38,820,323	31,667,529	36,122,039	104,816,825
10	Oats..... bu.	42,489,453	70,493,131	83,428,202	151,407,407	245,393,425
	"..... \$	15,966,310	23,967,665	31,702,717	51,509,118	86,796,130
11	Barley..... bu.	11,496,038	16,844,868	17,222,795	22,224,366	28,848,310
	"..... \$	8,170,735	11,791,408	8,611,397	8,889,746	14,653,697
12	Corn..... bu.	3,802,830	9,025,142	10,711,380	25,875,919	14,417,599
	"..... \$	2,283,145	5,415,085	5,034,348	11,902,923	5,774,039
13	Potatoes..... bu.	47,330,187	55,368,790	53,490,857	55,362,635	55,461,473
	"..... \$	15,211,774	13,283,510	21,396,342	18,840,658	27,426,765
14	Hay and clover..... ton	3,818,641	5,065,810	7,693,733	6,943,715	10,406,367
	"..... \$	38,869,900	40,446,480	69,243,597	85,625,315	90,115,531
	Total Areas, Field Crops ⁸ acres			15,662,811	19,763,740	30,556,168
	Total Values, Field Crops ⁸ \$	111,116,606	155,277,427	194,766,934	237,682,285	384,513,795
LIVE STOCK AND POULTRY—⁹						
15	Horses..... No.	836,700	1,059,400	1,470,600	1,577,500	2,599,000
	"..... \$				118,279,000	381,916,000
16	Milk cows..... No.	1,251,200	1,595,800	1,867,100	2,408,700	2,645,200
	"..... \$				69,238,000	111,633,000
17	Other cattle..... No.	1,373,100	1,919,200	2,263,500	3,167,800	3,880,900
	"..... \$				54,197,000	84,021,000
18	Sheep..... No.	3,155,500	3,048,700	2,563,800	2,510,200	2,174,300
	"..... \$				10,491,000	10,702,000
19	Swine..... No.	1,366,100	1,207,600	1,733,900	2,353,800	3,634,800
	"..... \$				16,446,000	26,987,000
20	All poultry..... No.	..	..	14,105,100	17,922,700	31,793,300
	"..... \$	..	..	..	5,724,000	14,654,000
	Total Values..... \$	..	..	..	274,375,000	630,113,000
DAIRYING—¹⁰						
21	Total milk production..... '000 lb.	..	..	..	6,866,834	9,806,741
22	Cheese, factory ¹¹ lb.	..	54,574,856	97,418,855	220,833,269	199,904,205
	"..... \$	..	5,457,486	9,741,886	22,221,430	21,587,124
23	Butter, creamery..... lb.	..	1,365,912	3,654,364	36,066,739	64,489,398
	"..... \$	..	341,478	913,591	7,240,972	15,597,807
24	Butter, dairy..... lb.	..	102,545,169	111,577,210	105,343,076	137,110,200
	"..... \$	..	..	..	21,384,644	30,269,497
25	Other dairy products ¹²..... \$	..	..	..	15,623,907	35,927,426
	Total Values, Dairy Products... \$	..	22,743,939	30,315,214	66,470,953	103,381,854
Forestry—						
26	Primary forest production..... \$	..	..	..	..	..
27	Lumber production..... M ft. b.m.	..	..	..	..	4,918,202
	"..... \$	..	..	..	..	75,830,954
28	Total sawmill products..... \$	..	..	..	..	..
29	Pulp and paper products..... \$	..	..	..	..	..
30	Exports of wood, wood products and paper ¹³..... \$	..	..	25,351,085	33,099,915	56,334,695

¹ All types of educational institutions. ² Ordinary and technical day schools. ³ Revised to reflect changes in classification, (see D.B.S. *Survey of Production, 1933-1950*). ⁴ Exclusive of the Territories.

⁵ Exclusive of Newfoundland. ⁶ Figures for the decennial census years 1871-1921 are for the next preceding years; those for 1871 are for the four original provinces only. ⁷ Cwt. ⁸ Includes other field crops, e.g., ryegrass and flaxseed, not included above. ⁹ On farms only. ¹⁰ Figures for the decennial census years

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1939	1941	1943	1949	1950	1951	
1,880,805	2,264,106	2,236,342	2,131,391	2,082,990	2,708,804	2,795,574	..	1
1,349,256	1,801,955	1,870,563	1,802,300	1,697,172	1,979,805	2,070,712	..	2
56,607	71,246	74,549	75,308	74,315	82,050	85,292	..	3
112,976,543	144,748,823	122,974,590	129,817,268	142,000,000	407,406,000	448,305,000	..	4
..	..	2,997,278,520	4,356,227,944	6,113,438,381	9,686,046,793	10,562,286,812	..	5
140,887,903	163,114,034	..	173,563,282	..	..	..	174,046,654	6
70,769,648	85,732,172	..	91,636,065	..	..	..	96,852,826	7
..	..	..	896,371	1,407,460	2,486,598 ^a	2,219,642 ^a	2,825,511	8
226,508,411	321,325,000	520,623,000	314,825,000	284,460,000	371,406,000 ^a	461,664,000 ^a	562,395,000	9
374,178,601	123,550,000	282,151,000	171,875,000	288,511,000	599,485,000 ^a	712,210,000 ^a	754,847,000	10
364,989,218	328,278,000	384,407,000	305,575,000	482,022,000	317,916,000 ^a	419,930,000 ^a	492,683,000	11
180,989,537	77,970,000	114,843,000	125,920,000	255,045,000	251,045,000 ^a	331,015,000 ^a	316,360,000	12
42,956,049	67,382,600	103,147,000	110,566,000	215,562,000	120,408,000 ^a	171,393,000 ^a	252,795,000	13
33,514,070	17,465,000	35,424,000	47,651,000	141,988,000	157,124,000 ^a	193,658,000 ^a	200,462,000	14
10,822,278	5,449,000	8,097,000	12,038,000	7,775,000	13,650,000 ^a	13,839,000 ^a	15,662,900	15
7,081,140	2,274,000	4,453,000	8,599,000	6,733,000	17,552,000 ^a	22,157,000 ^a	28,084,000	16
62,230,052	52,305,000	36,390,000 ^a	39,052,000 ^a	43,541,000 ^a	89,197,000 ^a	97,045,000 ^a	66,647,000	17
44,635,547	22,359,000	41,065,000	48,274,000	77,784,000	83,255,000 ^a	74,970,000 ^a	100,169,000	18
8,629,915	14,539,600	13,377,000	12,632,000	17,238,000	12,122,000 ^a	12,913,000 ^a	17,316,000	19
174,110,386	110,110,000	112,305,000	158,723,000	190,357,000	237,744,000 ^a	233,900,000 ^a	247,307,000	20
47,553,418	58,862,305	59,224,600	56,788,400	59,705,500	61,563,000 ^a	62,297,000 ^a	64,049,000	21
933,045,936	435,966,400	685,839,000	653,889,000	1,134,399,000	1,577,385,000 ^a	1,854,463,000 ^a	1,977,041,000 ^a	22
3,451,800	3,113,900	2,824,340	2,788,795	2,775,200	1,796,200 ^a	1,683,000 ^a	1,306,634	23
414,808,000	205,087,000	189,708,000	184,549,656	222,985,000	135,289,000 ^a	116,567,000 ^a	94,751,332	24
3,086,700	3,371,900	3,873,500	3,626,025	3,794,700	3,620,200 ^a	3,608,700 ^a	2,907,849	25
188,518,000	160,655,000	179,807,000	191,214,000	386,227,000	562,362,000 ^a	632,963,000 ^a	725,433,181	26
5,282,800	4,601,100	4,601,100	4,890,982	5,870,500	5,461,100 ^a	5,436,600 ^a	5,463,142	27
146,567,000	94,952,000	151,087,000	138,196,000	301,525,000	406,883,000 ^a	568,295,000 ^a	870,217,901	28
3,200,500	3,627,100	3,365,800	2,839,948	3,458,600	2,075,400 ^a	2,015,000 ^a	1,478,737	29
20,675,000	19,680,000	22,511,000	17,038,647	37,764,000	30,154,000 ^a	35,754,000 ^a	39,011,538	30
3,324,300	4,699,800	4,294,000	6,081,389	8,148,500	5,162,900 ^a	5,247,100 ^a	4,915,987	31
35,669,000	33,288,000	59,213,000	54,911,751	134,845,000	178,362,000 ^a	179,556,000 ^a	185,861,477	32
37,185,800	65,468,000	61,139,800	63,526,202	79,247,000	72,659,300 ^a	64,885,800 ^a	67,934,092	33
38,015,000	45,138,000	46,459,700	27,444,115	70,802,000	89,278,000 ^a	77,805,000 ^a	91,460,742	34
844,452,000	558,800,000	648,845,700	613,354,169	1,154,148,000	1,462,328,000 ^a	1,610,940,000 ^a	2,006,736,171	35
11,897,545	14,330,686	15,781,104	16,549,902	17,518,973	16,843,345 ^a	16,448,800 ^a	16,391,998	36
162,117,000	113,956,639	125,475,359	151,866,000	166,274,217	121,030,000 ^a	102,650,000 ^a	90,615,000	37
28,710,000	12,824,695	15,311,782	24,737,037	38,902,000	39,856,000 ^a	32,058,000 ^a	33,357,000	38
128,745,000	225,955,246	267,612,516	285,848,196	311,709,476	279,805,000 ^a	261,464,000 ^a	257,604,000	39
48,135,000	50,198,878	61,748,399	94,199,557	105,104,000	164,988,000 ^a	144,358,000 ^a	182,507,000	40
107,579,000	98,590,000	87,459,000	82,796,000	95,407,000	52,852,000 ^a	48,897,000 ^a	48,400,000	41
35,307,000	20,098,000	16,140,000	24,373,000	19,660,000	30,790,000 ^a	25,261,000 ^a	28,043,000	42
110,623,000	109,262,000	123,671,635	159,363,878	211,731,200	354,442,000 ^a	362,698,000 ^a	411,479,000	43
222,775,000	192,384,173	216,871,816	301,673,472	375,403,200	590,076,000 ^a	564,375,000 ^a	635,386,000	44
168,054,024	141,123,930	157,747,398	213,163,089	268,615,283	561,412,062	625,734,602	..	45
2,869,307	2,497,553	3,976,882	4,941,084	4,363,575	5,915,443	6,553,898	..	46
92,448,585	45,977,843	78,331,839	129,287,703	151,899,684	334,789,873	422,480,700	..	47
116,891,191	62,769,253	100,132,597	163,412,292	195,885,336	396,415,201	496,943,398	..	48
151,003,165	174,733,954	208,152,295	334,726,175	344,411,614	836,148,393	954,137,651	..	49
284,561,478	185,493,491	242,541,043	387,113,232	391,069,658	875,317,680	1,112,945,061	..	50

1891-1921 are for the recent preceding years. In the Censuses of 1891 and 1891 values only were given of factory butter and cheese; quantities have been calculated by reckoning cheese at 10 cents per lb. and butter at 25 cents per lb.

¹ Data shown for 1949-51 represent cheddar and other cheese made from whole milk; prior to 1942 the figures included other cheese for Quebec only.

² Prior to 1921 this item does not include skim milk and buttermilk.

³ Fiscal years prior to 1931.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
Mineral Production—						
1	Gold ¹ oz t.	105,187	63,524	45,018	1,167,216	473,159
	\$	2,174,412	1,313,153	930,614	24,128,503	9,781,077
2	Silver..... oz t.	..	355,083 ²	414,523	5,539,192	32,559,044
	\$	..	347,271 ²	409,549	3,265,354	17,355,272
3	Copper..... lb.	..	3,260,424 ²	9,529,401	37,827,019	55,648,011
	\$	..	366,798 ²	1,226,703	6,096,581	6,886,998
4	Lead..... lb.	..	204,800 ²	88,665	51,900,958	23,784,969
	\$	..	9,216 ²	3,857	2,249,387	827,717
5	Zinc..... lb.	..	..	..	788,000 ³	1,877,479
	\$	..	..	..	36,011 ³	108,105
6	Nickel..... lb.	..	830,477 ⁴	4,035,347	9,189,047	34,098,744
	\$	..	498,286 ⁴	2,421,208	4,594,523	10,229,623
7	Pig-iron..... long ton	..	22,167 ⁵	21,331	244,979	819,228
8	Coal..... short ton	1,963,742 ⁶	1,537,106	3,557,749	6,486,325	11,323,388
	\$	1,763,423 ⁶	2,688,621	7,019,425	12,699,243	26,467,646
9	Natural gas..... M cu. ft.	..	..	150,000 ⁷	339,476	1,917,678
	\$	..	..	755,298	622,392	291,092
10	Petroleum, crude..... bbl.	..	368,987	1,010,211	1,008,275	357,073
11	Asbestos..... short ton	..	..	9,279	40,217	127,414
12	Cement..... bbl.	..	69,843 ²	99,878	1,259,759	2,943,108
	\$	..	81,909 ²	93,479	450,394	5,692,915
	Totals, Mineral Production ⁸..... \$	..	10,221,255 ⁹	18,976,616	65,797,911	103,220,994
Water Power—						
13	Turbine installation..... h.p.	..	..	71,219	238,902	1,363,134
Central Electric Stations—						
14	Power houses..... No.	..	..	80	58	266
15	Capital invested..... \$	..	..	4,113,771	11,891,025	110,838,746
16	Power generated..... '000 kwh.	..	..	..	..	..
17	Customers..... No.	..	..	..	..	..
Fisheries—						
18	Marketed value of all products..... \$	7,573,199	15,817,162	18,977,874	25,737,153	34,667,872
Furs—						
19	Pelts taken ¹⁰ No.	..	..	..	..	..
20	Value of animals on fur farms..... \$	..	..	..	..	..
Manufactures—¹¹						
21	Employees..... No.	187,942	254,935	369,595	339,173	515,203
22	Capital..... \$	77,964,020	165,302,623	353,213,000	446,916,187	1,247,583,609
23	Salaries and wages..... \$	40,851,009	59,429,002	100,415,350	113,249,350	241,008,416
24	Values of materials used in..... \$	124,907,846	179,918,593	250,759,292	266,527,858	601,509,018
Products—						
25	Gross ¹² \$	221,617,773	309,676,068	469,847,886	481,053,375	1,165,975,639
26	Net ¹² \$	96,709,927	129,757,475	219,088,594	214,525,517	564,466,621
Construction—						
27	Values of contracts awarded..... \$	..	..	..	..	345,425,000
Labour—						
28	Labour force ¹³ No.	..	..	..	..	..
Gainfully Occupied—¹⁴						
29	Agricultural occupations..... No.	..	..	735,207 ¹⁶	716,860	933,735
30	Other primary..... " " " "	..	..	58,211 ¹⁸	71,584 ¹⁸	139,877 ¹⁹
31	Manufacturing..... " " " "	..	..	237,972	299,535	372,234
32	Construction..... " " " "	..	..	86,694	89,165	150,567
33	Transportation..... " " " "	..	..	61,310	82,483	158,926
34	Trade and finance..... " " " "	..	..	88,064	99,552	221,805
35	Service..... " " " "	..	..	203,897	236,205	322,895
36	Clerical..... " " " "	..	..	24,121 ²¹	58,789	106,351
37	Labourers..... " " " "	..	..	116,598	127,867	317,244
38	Not stated..... " " " "	..	..	3,534	792	..
	Totals, Gainfully Occupied..... " "	..	..	1,615,608	1,782,832	2,723,634
39	Wage-earners ¹⁵ No.	..	..	..	..	1,628,273

¹ As from 1932 the values include exchange equalization. ² 1887. ³ 1898. ⁴ 1889. ⁵ Short tons. ⁶ 1874. ⁷ 1892. ⁸ Includes other items not specified. ⁹ 1886. ¹⁰ Years ended Sept. 30. ¹¹ The statistics of manufactures in 1871, 1881 and 1891 include all establishments irrespective of the number of employees. From 1901, statistics are for establishments with five hands or over. The figures shown for census years prior to 1921 are for the preceding year. From 1922, statistics are exclusive of construction hand trades, repair and custom work. Figures for 1931-50 include non-ferrous metal smelting not included in earlier years. ¹² Since 1924 the net value of production is computed by subtracting the cost of fuel and elec-

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1939	1941	1943	1949	1950	1951	
926,329	2,693,892	5,094,379	5,345,179	3,651,301	4,123,518	4,441,227	4,392,751	1
19,148,920	58,093,396	184,115,951	205,789,392	140,575,088	148,446,648	168,988,687	161,872,873	2
13,543,198	20,562,247	23,163,629	21,754,408	17,344,569	17,641,493	23,221,431	23,125,825	3
8,485,355	6,141,943	9,378,490	8,323,454	7,849,111	13,098,808	18,767,661	21,865,467	4
47,620,820	292,304,390	608,828,570	648,316,713	575,190,132	526,913,632	528,418,296	539,941,589	5
5,953,555	24,114,065	80,934,859	64,407,497	67,170,601	104,719,151	123,211,407	149,026,216	6
66,679,592	267,342,482	388,509,550	400,167,005	444,060,769	319,549,865	331,394,128	316,462,751	7
53,089,356	237,245,451	394,533,800	512,381,636	610,754,354	50,488,879	47,886,452	58,229,146	8
2,471,310	6,059,249	12,108,244	17,477,337	24,430,174	76,524,097	626,454,598	682,224,335	9
19,293,060	65,666,320	226,105,865	282,258,297	288,018,615	76,372,147	98,040,145	135,762,643	10
6,752,571	15,267,453	50,920,305	65,656,705	71,675,322	257,379,216	247,317,867	275,806,272	11
593,829	420,038	758,731	1,528,053 ¹	1,758,269 ²	99,173,289	112,104,685	151,209,994	12
15,057,493	12,243,311	48,676,990	18,225,921	17,859,597	2,154,485	2,317,121	2,552,696 ³	13
72,451,656	41,207,682	15,692,698	58,059,630	62,877,549	19,120,046	19,139,112	18,586,823	14
14,077,601	25,874,723	35,185,146	43,495,353	44,276,216	110,915,121	110,140,399	109,038,855	15
4,594,164	9,026,754	12,507,307	12,665,116	13,159,418	60,457,177	67,822,330	79,400,667	16
187,541	1,542,573	7,826,301	10,133,838	10,052,302	11,620,302	6,433,041	7,158,920	17
641,533	4,211,674	9,846,352	14,415,066	16,470,417	21,305,348	29,643,788	47,615,534	18
92,761	164,296	364,472	477,846	476,196	61,118,490	84,619,937	116,655,238	19
4,906,230	4,812,886	15,859,212	21,468,840	23,169,505	39,746,072	65,854,568	81,584,345	20
5,752,885	10,161,658	5,731,264	8,368,711	7,302,289	15,916,564	16,741,824	17,007,812	21
14,195,143	15,826,243	8,511,211	13,063,588	11,599,033	32,901,936	35,894,124	40,446,288	22
171,923,342	230,434,726	474,602,059	560,241,290	530,053,966	901,110,026	1,045,450,073	1,245,483,595	23
2,754,157	6,666,337	8,289,212	8,845,038	10,214,513	11,613,333	12,562,750	13,342,504	24
510	559	611	607	622	650	665	..	25
484,660,451	1,229,988,951	1,564,603,211	1,641,460,451	1,778,224,640	..	..	..	26
5,614,132	16,330,867	28,338,030	33,317,663	40,479,593	44,418,573	48,493,718	..	27
973,212	1,632,792	1,941,663	2,081,270	2,169,148	3,076,369	3,269,824	..	28
34,931,935	30,517,306	40,075,922	62,258,997	85,594,544	132,306,372	152,062,597	..	29
2,936,407	4,060,356	6,492,222	7,257,337	7,418,971	9,902,790	7,377,491	7,479,272	30
10,151,594	11,803,217	14,286,937	21,123,161	28,505,033	22,899,882	23,184,033	31,134,400	31
5,977,545	8,497,237	6,920,464	7,928,971	10,044,903	8,743,225	10,444,286	..	32
438,555	528,640	658,114	961,178	1,241,068	1,171,207	1,183,297	..	33
2,697,858,073	3,705,701,893	3,647,024,449	4,905,503,966	6,317,166,727	..	..	..	34
497,399,761	2,587,566,990	737,811,153	1,264,862,643	1,987,292,384	2,591,890,657	2,771,267,435	..	35
1,365,292,885	1,221,911,982	1,836,159,375	3,296,547,019	4,690,493,083	6,843,231,064	7,538,534,532	..	36
2,488,987,148	2,555,126,448	3,474,783,528	6,076,308,124	8,732,860,999	12,479,593,300	13,817,526,381	..	37
1,123,694,263	1,252,017,248	1,531,051,901	2,605,119,788	3,816,413,541	5,330,566,434	5,942,058,229	..	38
240,133,300	315,482,000	187,178,500	393,991,300	206,103,900	1,143,547,300	1,525,764,700	2,295,499,200	39
..	4,105,000	4,598,000	4,417,000	4,522,000	5,071,000	4,882,000 ⁴	5,255,000	40
1,041,544	1,131,845	..	1,083,816	..	..	..	830,441 ⁵	41
115,953 ¹⁸	150,491	..	203,586	..	..	..	217,207 ¹⁷	42
407,087	495,922	..	709,181	..	..	..	902,986 ¹⁷	43
162,291	203,066	..	213,493	..	..	..	299,611 ¹⁷	44
199,941	289,191	..	311,645	..	..	..	413,307 ¹⁷	45
293,555	352,603	..	370,617	..	..	..	340,878 ¹⁷	46
421,057	617,473	..	725,456 ²⁰	..	..	..	893,462 ¹⁷	47
217,937	258,689	..	314,051	..	..	..	565,709 ¹⁷	48
306,652	426,396	..	252,693	..	..	..	351,206 ¹⁷	49
7,152	1,654	..	11,413	..	..	..	64,155 ¹⁷	50
3,173,169	3,927,230	..	4,195,951 ²⁰	..	..	..	5,286,153 ^{17, 22}	51
1,972,089	2,570,097	..	2,816,798 ²⁰	..	..	..	..	52

tricity as well as the cost of materials from the gross value of the products.

institutions, remote areas, Indians on reservations and the Armed Forces.

¹⁵ Exclusive of the Territories.

gainful occupation. ¹⁶ Includes all farmers' sons, 14 years and over, whether or not reported with

nomadic Indians and Indians on reserves. ¹⁷ Labour force 14 years of age and over as defined in the 1951 Census.

employees, except clerical workers. ¹⁸ Excludes

workers in government service were included with "Service". ¹⁹ Includes pulp-mill employees and almost all mine and smelter

employees, except clerical workers. ²⁰ Exclusive of persons on Active Service on June 2, 1941. ²¹ Clerical

workers in government service were included with "Service". ²² Includes 407,191 proprietary and managerial.

¹³ Exclusive of persons in

¹⁴ Excludes Manitoba.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

Item		1871	1881	1891	1901	1911
Transportation—						
STEAM RAILWAYS—						
1	Miles in operation..... No.	2,695	7,331	13,838	18,140	25,400
2	Capital liability..... \$	257,035,188 ¹	284,419,293	632,061,440	816,110,837	1,528,689,201
3	Passengers..... No.	5,190,416 ²	6,943,671	13,222,568	18,385,722	37,097,718
4	Freight..... ton	5,670,836 ²	12,065,323	21,753,021	36,999,371	79,884,282
5	Earnings..... \$	19,470,539 ²	27,987,509	48,192,099	72,898,749	188,733,494
6	Expenses..... \$	15,775,532 ²	20,121,418	34,960,449	50,368,726	131,034,785
ELECTRIC RAILWAYS—						
7	Miles in operation..... No.	..	..	..	553	1,224
8	Capital liability..... \$	..	..	..	..	111,532,347
9	Passengers..... No.	..	..	..	120,934,656	426,296,792
10	Freight..... ton	..	..	..	287,926	1,228,362
11	Earnings..... \$	..	..	..	5,768,283	20,356,952
12	Expenses..... \$	..	..	..	3,435,162	12,096,134
ROAD TRANSPORTATION—						
13	Highways, total mileages ⁴ No.	..	..	..	..	..
14	Capital expenditure on ⁴..... \$	..	..	..	..	..
15	Motor-vehicles registered..... No.	..	..	..	..	21,783
16	Total provincial revenue from licences and operation..... \$	..	..	..	..	..
SHIPPING—						
17	Vessels on the registry..... No.	..	7,394	7,015	6,697	8,088
	ton.....	..	1,310,896	1,005,475	666,276	770,446
18	Sea-Going— ^{5,6}					
	Entered..... ton	2,521,673	4,032,946	5,273,935	7,514,732	11,919,339
19	Cleared.....	2,594,460	4,071,391	5,421,261	7,028,330	10,377,847
20	Totals..... "	5,116,033	8,104,337	10,695,196	14,543,062	22,297,186
21	Inland International— ^{4,6}					
	Entered..... ton	4,055,198	2,934,503	4,098,434	5,720,575	13,286,102
22	Cleared.....	3,954,797	2,763,592	4,009,018	5,766,171	11,846,257
23	Totals..... "	8,009,995	5,698,095	8,107,452	11,486,746	25,132,359
24	Coastwise— ⁶					
	Entered..... ton	..	7,664,863	12,835,774	17,927,959	34,280,669
25	Cleared.....	..	7,451,903	12,150,356	16,516,837	32,347,265
26	Totals..... "	..	15,116,766	24,986,130	34,444,796	66,627,934
CANALS—						
27	Passengers carried..... No.	100,377	118,136	146,336	190,428	304,904
28	Freight..... ton	3,955,621	2,853,230	2,902,526	5,665,259	38,030,353
AIR TRANSPORTATION—						
29	Miles flown..... No.	..	..	..	..	..
30	Passenger miles.....	..	..	..	..	..
31	Freight carried..... lb.	..	..	..	..	..
32	Mail carried..... "	..	..	..	..	..
Communications—						
33	Telegraphs, Govt., miles of line ⁷ No.	..	1,947	2,699	5,744	8,446
34	Telegraphs, other, miles of line.....	..	..	27,866	30,194	33,905
35	Telephones.....	..	..	..	63,192	302,759 ⁸
36	Telephones, employees ⁹.....	..	..	..	..	10,425 ⁸
37	Radio receiving licences.....	..	..	..	..	..
Post Office—						
38	Revenue..... \$	803,637	1,344,970	2,515,824	3,421,192	9,146,952
39	Expenditure..... \$	994,876	1,876,658	3,161,676	3,837,376	7,954,223
40	Money orders issued..... \$	4,546,434	7,725,212	12,478,178	17,956,258	70,614,862
Wholesale and Retail Trade—						
Wholesale—¹⁰						
41	Establishments..... No.	..	..	..	..	..
42	Employees.....	..	..	..	..	..
43	Net sales..... \$	..	..	..	..	..
44	Retail—Stores ¹⁰ No.	..	..	..	..	..
45	Employees, full-time.....	..	..	..	..	..
46	Net sales..... \$	..	..	..	..	..

¹ 1876.² 1875.³ Duplication eliminated.⁴ Fiscal years.⁵ Fiscal year prior to 1941.⁶ In foreign service, which includes sea-going and inland international after 1936.⁷ Prior to 1941, Temiskaming and Northern Ontario Railway Commission excluded.⁸ As at June 30.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1939	1941	1943	1949	1950	1951	
39,191	42,280	42,637	42,441	42,346	42,978	42,979	42,956	1
2,164,687,636	4,232,022,088	3,367,702,730	3,397,488,564	3,356,600,167	3,269,633,260	3,475,808,310	3,571,693,932	2
46,793,251	26,396,812	20,482,296	29,779,241	57,175,840	34,883,803	31,139,092	30,995,604	3
83,730,829 ^a	74,129,694 ^a	84,631,122 ^a	116,808,091 ^a	153,314,264 ^a	142,719,431 ^a	144,218,319 ^a	161,260,521 ^a	4
458,008,891	358,549,382	367,179,095	538,291,947	778,914,565	894,397,264	958,985,751	1,088,583,789	5
422,581,205	321,025,588	304,373,285	403,733,542	560,597,204	831,456,446	833,726,562	977,577,062	6
1,680	1,379	1,083	1,028	1,019	719	663	595	7
177,187,436	215,818,096	204,581,406	193,532,914	184,926,237	171,370,207	186,444,978	199,411,550	8
719,305,441	720,468,361	632,533,152	795,170,569	1,177,003,883	1,240,558,812	1,186,570,685	1,165,123,371	9
2,282,292	1,977,441	2,313,748	3,265,449	3,751,785	3,702,016	4,115,974	4,480,072	10
44,536,832	49,088,310	42,864,150	55,334,647	80,027,414	95,596,394	91,034,058	99,114,548	11
35,945,316	35,367,068	29,605,328	37,030,823	54,548,335	92,378,848	89,414,380	97,880,959	12
..	378,094	497,707	561,489	552,778	561,347	567,155	567,155	13
..	66,250,229	62,577,241	37,237,954	24,894,807	156,223,856	154,699,553	..	14
464,805	1,200,668	1,439,245	1,572,784	1,511,845	2,290,628	2,600,269	2,872,420	15
..	42,231,027	79,915,560	91,139,300	86,842,351	196,040,170	222,332,113	252,213,001	16
7,482	8,966	8,419	8,667	9,074	14,102	14,816	15,292	17
1,223,973	1,484,423	1,287,365	1,271,811	1,348,304	1,832,393	1,665,697	1,659,351	18
12,516,503	28,064,762	31,353,871	31,452,400	26,345,562	40,088,377	42,816,949	47,508,342	19
12,400,226	26,535,387	32,044,242	33,313,400	28,504,987	44,256,743	47,340,150	52,750,461	20
24,916,729	54,600,149	63,398,113	64,765,800	54,850,549	84,345,120	90,157,099	100,258,803	21
14,828,454	17,769,690	13,421,245	..	..	..	..	..	22
14,903,447	18,542,037	15,008,129	..	..	..	..	..	23
29,731,901	36,311,727	28,429,374	..	..	..	..	..	24
28,567,545	47,134,652	45,386,457	48,107,158	40,300,778	56,037,003	56,066,997	60,802,798	25
27,773,668	47,540,555	43,183,652	46,433,320	38,668,241	52,203,784	51,615,568	55,609,082	26
56,341,213	94,675,207	88,570,109	94,540,478	78,969,019	108,240,787	107,682,565	116,411,880	27
230,129	126,633	62,790	100,092	72,128	81,216	64,255	93,512	28
9,407,021	16,189,074	23,391,077	23,453,367	21,476,194	24,373,752	27,439,076	29,325,034	29
294,449	7,046,276	10,969,271	12,508,390	15,293,549	37,746,986	41,368,494	48,159,722	30
..	4,073,552	26,107,750	56,723,714	108,390,464	416,389,463	499,580,633	610,929,523	31
79,850	2,372,467	21,253,364	16,559,611	13,853,563	37,042,387	46,589,092	61,589,732	32
..	470,461	1,900,347	3,411,971	7,586,809	13,506,220	14,241,523	16,485,568	33
11,207	9,300	8,780	9,199	9,366	8,037	8,073	8,606	34
41,577	43,928	43,654	43,047	43,048	44,498	43,926	44,974	35
902,090	1,364,200	1,397,272	1,562,146	1,692,162	2,699,612	2,917,092	3,108,437	36
19,943	23,825	17,636	20,103	20,694	42,326	45,396	47,387	37
..	523,100	1,223,502	1,454,717	1,728,880	2,057,799	2,177,445	2,212,435	38
26,331,119	30,416,107	35,288,220	40,383,366	48,868,762	80,618,401	84,528,655	90,454,678	39
24,661,262	36,292,604	35,456,181	38,699,674	44,741,987	77,642,621	82,639,741	91,781,466	40
173,523,322	167,749,651	145,204,787	173,565,550	236,925,920	415,703,754	479,520,987	511,915,621	41
..	13,140	..	24,758	..	..	..	..	42
..	90,564	..	117,471	..	..	..	..	43
..	3,325,210,300	..	5,290,751,000	..	..	..	..	44
..	125,003	..	137,331	..	..	..	..	45
..	238,683	..	297,047	..	..	..	..	46
..	2,320,963,000	2,447,658,000 ¹¹	3,440,901,700	3,785,840,000 ¹¹	8,427,900,000 ¹¹	9,467,400,000 ¹¹	10,517,326,000 ¹¹	47

^a Excludes rural lines in Saskatchewan.¹¹ Estimated on intercensal survey.¹⁰ Census figures for calendar years 1930 and 1940, respectively.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
Wholesale and Retail Trade—concluded						
Retail Services— ¹						
1	Establishments..... No.	..	..	...	..	..
2	Employees, full-time.....	..	..	..	..	..
3	Receipts..... \$	..	..	..	..	..
Commercial Failures..... No.						
4	Liabilities..... \$	..	..	1,861	1,341	1,332
5		..	..	16,723,939	10,811,671	13,491,196
Foreign Trade—³						
6	Exports, domestic..... \$	57,630,024	83,944,701	88,671,738	177,431,386	274,316,553
7	Imports, for consumption..... \$	84,214,388	90,488,329	111,533,954	177,930,919	452,724,603
	Totals, Foreign Trade..... \$	141,844,412	174,433,030	200,205,692	355,362,305	727,041,156
8	Total exports to Commonwealth... \$			47,137,203	100,748,097	148,967,442
9	Exports to United Kingdom..... \$	21,733,556	42,637,219	43,243,784	92,857,525	132,156,924
10	Total imports from Commonwealth... \$			44,337,052	46,653,228	129,467,647
11	Imports from United Kingdom..... \$	48,498,202	42,885,142	42,018,943	42,820,334	109,934,753
12	Exports to United States..... \$	29,164,358	34,038,431	37,743,420	67,983,673	104,115,823
13	Imports from United States..... \$	27,185,586	36,338,701	52,033,477	107,377,906	275,824,265
EXPORTS, DOMESTIC, BY CHIEF ITEMS—						
14	Wheat..... bu.	1,748,977	2,523,673	2,108,216	9,739,758	45,802,115
	\$	1,981,917	2,593,820	1,583,084	6,871,939	45,521,134
15	Wheat flour..... bbl.	306,339	439,728	296,784	1,118,700	3,049,046
	\$	1,609,849	2,173,108	1,388,578	4,015,226	13,854,790
16	Oats..... bu.	42,386	2,926,532	260,569	8,155,063	5,431,662
	\$	231,227	1,191,873	129,917	2,490,521	2,144,846
17	Hay..... ton	23,487	168,381	65,083	252,977	326,132
	\$	290,217	1,813,208	559,489	2,097,882	2,723,291
18	Bacon, hams, shoulders and sides..... cwt.	103,444	103,547	75,542	1,055,495	598,745
	\$	1,018,918	768,334	628,469	11,778,446	8,526,432
19	Butter..... lb.	15,439,266	17,649,491	3,768,101	16,335,528	3,142,682
	\$	3,065,234	3,573,034	602,175	3,295,663	744,288
20	Cheese..... lb.	8,271,439	49,255,523	106,202,140	195,926,397	181,895,724
	\$	1,109,906	5,510,443	9,508,800	20,696,951	20,739,507
21	Silver..... oz t.		34,494		4,022,019	33,731,010
	\$	595,261		238,367	2,420,750	17,269,168
22	Copper ⁴ lb	6,246,000	39,604,000	10,994,498	26,345,776	55,005,342
	\$	120,121	150,412	505,196	2,659,261	5,575,073
23	Nickel..... lb.	..	..	5,352,043	9,537,558	34,767,523
	\$	..	..	240,499	958,365	3,842,332
24	Coal..... ton	318,287	420,055	833,684	1,888,538	2,315,171
	\$	662,451	1,123,091	2,916,465	5,307,060	6,014,095
25	Asbestos..... ton	..	..	7,022	26,715	69,829
	\$	..	..	513,909	864,573	2,076,477
26	Wood-pulp..... cwt.	..	..	280,619	1,937,207	6,588,655
	\$	..	..	..	..	5,715,532
27	Newsprint..... cwt.	..	..	..	..	3,092,437
	\$
EXPORTS, DOMESTIC, BY CLASSES—						
28	Vegetable products (except chemicals, fibres and wood)..... \$	..	..	13,742,557	25,541,567	84,368,425
29	Animals and their products (except chemicals and fibres)..... \$	..	..	36,399,140	68,465,332	69,693,263
30	Fibres, textiles and textile products..... \$	..	..	872,628	1,880,539	1,818,931
31	Wood, wood products and paper..... \$	..	..	25,351,085	33,099,915	56,334,695
32	Iron and its products..... \$	..	..	556,527	3,778,897	9,884,846
33	Non-ferrous metals and their products..... \$	..	..	1,618,955	33,395,096	34,000,996
34	Non-metallic minerals and their products (except chemicals)..... \$	..	..	3,988,584	7,356,444	10,038,493
35	Chemicals and allied products..... \$	..	..	851,211	171,855	3,088,840
36	All other commodities..... \$	..	..	5,291,051	3,121,741	5,088,564
	Totals, Exports, Domestic... \$	57,630,024	83,944,701	88,671,738	177,431,386	274,316,553

¹ Census figures for calendar years 1930 and 1940, respectively.² Includes Newfoundland.³ Fiscal⁴ Copper, fine, contained in ore, matte, regulus, etc.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA--continued

1921	1931	1939	1941	1943	1949	1950	1951	
..	42,223	..	49,271	..	..	..	..	1
..	55,257	..	62,781	..	..	..	..	2
..	249,455,900	..	254,678,000	..	..	..	..	3
2,451 ²	2,563 ²	1,299	882	186	596	717	797	4
73,299,111 ²	52,987,554 ²	11,635,000	6,959,000	3,634,000	17,279,000	15,392,000	19,048,000	5
800,140,296	587,653,440	924,926,104	1,621,003,175	2,971,475,277	2,992,960,978	3,118,385,551	3,914,460,376	6
799,478,483	628,098,386	751,055,534	1,448,791,650	1,735,076,890	2,761,207,241	3,174,253,138	4,084,856,478	7
1,599,627,779	1,215,751,826	1,675,981,638	3,069,794,825	4,706,552,167	5,754,168,219	6,292,638,689	7,999,316,854	
403,452,219	219,781,406	430,806,546	878,640,907	1,401,661,623	1,015,022,448	655,089,381	872,407,020	8
312,844,871	170,597,455	328,099,242	658,228,354	1,032,646,964	704,955,726	469,910,011	631,460,954	9
266,002,688	151,999,922	188,900,276	359,942,070	238,631,372	494,228,816	645,624,296	727,088,882	10
213,973,562	109,468,081	114,007,409	219,418,957	134,965,117	307,449,800	404,213,449	420,984,515	11
542,322,967	240,196,849	380,392,047	599,713,463	1,149,232,444	1,503,458,711	2,020,987,630	2,297,674,594	12
856,176,820	393,775,289	496,898,466	1,004,498,152	1,423,672,486	1,951,860,065	2,130,475,929	2,812,927,298	13
129,215,157	194,825,612	162,904,586	196,646,340	219,249,942	210,384,483	162,993,750	237,060,505	14
310,952,138	117,871,254	109,050,542	161,856,075	234,457,747	435,158,365	325,613,570	441,042,753	
6,017,032	5,697,224	5,342,172	11,439,191	12,896,995	9,698,024	10,095,002	12,078,671	15
66,520,490	20,207,319	16,378,301	44,807,353	66,273,692	97,683,325	93,838,590	113,854,397	
14,321,048	11,177,072	12,115,598	7,691,664	74,463,476	22,628,271	18,079,576	59,272,502	16
14,152,033	3,767,918	4,142,375	3,295,148	42,294,388	18,532,774	16,571,166	53,998,658	
179,398	89,056	94,191	33,412	181,568	130,110	114,081	100,429	17
4,210,594	839,278	773,782	391,605	2,527,291	2,895,536	2,838,399	2,023,856	
982,338	127,752	1,878,251	4,646,140	5,629,656	670,866	785,267	61,325	18
31,492,407	2,035,382	32,650,049	77,494,498	116,121,532	24,175,917	28,306,976	3,649,744	
9,739,414	10,680,500	12,398,606	1,481,800	9,408,800	1,068,800	1,629,100	543,700	19
5,128,831	2,329,853	2,673,765	493,525	3,819,800	613,751	943,042	387,404	
133,620,340	84,785,400	90,944,800	92,331,000	129,741,000	52,694,800	63,109,600	30,653,200	20
37,146,722	10,594,917	12,248,650	13,564,911	26,811,113	16,256,818	16,551,608	10,231,725	
13,331,050	18,666,367	21,030,580	17,235,320	11,451,635	10,266,526	11,849,290	17,794,564	21
11,127,432	5,399,259	8,525,173	6,585,443	5,558,053	7,573,471	9,421,106	16,479,607	
36,167,900	48,761,200	121,500,900	95,538,703	72,419,400	74,115,700	64,598,400	73,705,800	22
4,336,972	3,891,045	8,505,064	6,687,709	5,069,358	14,823,140	12,919,680	14,740,460	
47,018,300	60,420,300	229,930,400	275,190,300	271,094,400	254,283,500	243,302,300	262,365,600	23
9,405,291	13,188,928	56,522,602	67,679,708	68,346,346	92,323,686	105,299,743	136,689,457	
2,277,202	359,853	376,203	531,449	1,110,101	432,043	394,061	435,083	24
16,501,478	1,909,922	1,666,934	2,596,626	5,428,362	3,563,892	3,198,004	3,495,664	
154,152	70,903	186,238	220,255	212,827	182,272	290,643	325,254	25
12,255,793	3,929,317	12,463,177	14,550,435	16,533,440	23,185,081	39,657,296	49,402,972	
14,363,006	12,450,741	14,110,308	28,234,485	31,129,131	30,974,122	36,922,864	44,866,161	26
71,552,037	30,056,643	31,000,602	85,897,736	100,012,775	170,675,310	208,555,549	365,132,884	
15,112,586	40,164,815	53,174,453	65,240,248	56,205,769	94,093,031	98,761,380	102,241,224	27
78,922,137	107,233,112	115,687,288	154,356,543	144,707,065	433,881,585	485,746,314	536,372,498	
482,140,444	209,760,786	220,118,056	285,708,739	483,756,894	773,006,888	636,897,823	894,209,730	28
188,359,937	70,938,351	131,803,706	201,730,555	289,566,022	338,421,481	365,775,038	348,033,470	29
18,783,884	5,394,084	14,427,669	30,819,633	30,620,390	25,217,322	29,573,450	36,858,344	30
284,661,478	185,493,491	242,541,043	387,113,232	391,069,658	875,317,680	1,112,945,061	1,399,076,131	31
76,500,741	19,086,492	63,102,432	239,900,848	716,644,883	292,864,223	251,108,538	342,298,703	32
45,939,377	56,158,939	182,890,103	244,012,336	332,704,960	426,607,610	457,262,306	569,870,193	33
40,345,345	14,976,873	29,332,099	45,172,085	62,191,606	73,710,209	103,654,760	131,529,446	34
20,142,826	10,848,946	24,263,312	85,676,338	86,390,600	70,697,937	100,525,482	131,689,729	35
32,389,669	14,995,478	16,447,654	127,869,409	578,530,264	117,117,628	60,644,093	60,894,630	36
1,189,163,701	587,653,440	924,926,104	1,621,003,175	2,971,475,277	2,992,960,978	3,118,386,551	3,914,460,376	

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
Foreign Trade—concluded						
IMPORTS FOR CONSUMPTION—						
1	Vegetable products (except chemicals, fibres and wood).....	\$ ..	..	24,212,140	38,036,146	79,214,041
2	Animals and their products (except chemicals and fibres)....	\$ ..	..	8,080,862	14,022,896	30,671,908
3	Fibres, textiles and textile products.....	\$ ..	..	28,670,141	37,284,752	87,916,282
4	Wood, wood products and paper. ....	\$ ..	..	5,203,490	8,196,901	26,851,936
5	Iron and its products.....	\$ ..	..	15,142,615	29,955,936	91,968,180
6	Non-ferrous metals and their products.....	\$ ..	..	3,810,626	7,167,318	27,579,572
7	Non-metallic minerals and their products (except chemicals)....	\$ ..	..	14,139,024	21,255,403	53,430,475
8	Chemicals and allied products....	\$ ..	..	3,697,810	5,684,999	12,471,730
9	All other commodities.....	\$ ..	..	8,577,246	16,326,568	42,620,479
	Totals, Imports.....	\$ 84,214,388	90,488,329	111,533,954	177,930,919	452,724,603
Prices—						
10	Wholesale indexes (1935-39=100).....	..	..	..	..	..
11	Consumer price index (1949=100).....	..	..	..	..	..
Federal Finance—						
12	Customs revenue.....	\$ 11,841,105	18,406,092	23,305,218	28,293,930	71,838,089
13	Excise revenue.....	\$ 4,295,945	5,343,022	6,914,850	10,318,266	16,869,837
14	Income tax.....	\$ ..	..	..	..	..
15	Sales tax (net).....	\$ ..	..	..	..	..
16	Total receipts from taxation.....	\$ 16,320,369	23,942,139	30,220,068	38,612,196	88,707,926
17	Per capita receipts from taxes.....	\$ 4.50	5.63	6.32	7.28	12.69
18	Total revenue.....	\$ 19,335,561	29,635,298	38,579,311	52,514,701	117,780,409
19	Revenue per capita.....	\$ 5.34	6.96	8.07	9.91	16.87
20	Total expenditure.....	\$ 19,293,478	33,796,643	40,793,208	57,982,866	122,861,250
21	Expenditure per capita.....	\$ 5.32	7.94	8.54	10.94	17.58
22	Gross debt.....	\$ 115,492,683	199,861,537	289,899,230	354,732,433	474,941,487
23	Assets.....	\$ 37,786,165	44,465,757	52,090,199	86,252,429	134,899,435
24	Net debt.....	\$ 77,706,518	155,395,780	237,809,031	268,480,004	340,042,052
Provincial Finance—						
25	Gross general revenue.....	\$ 5,518,946	7,858,698	10,693,815	14,074,991	40,706,948
26	Gross general expenditure.....	\$ 4,935,008	8,119,701	11,628,353	14,146,059	38,144,511
National Accounts—						
27	National income.....\$'000,000	..	..	..	..	..
Note Circulation—						
28	Bank notes.....	\$ 20,914,637	28,516,692	33,061,042	50,601,205	89,982,223
29	Dom., Bank of Canada and other notes ¹	\$ 7,244,341	14,539,795	16,176,316	27,898,509	99,308,945
Chartered Banks—						
30	Capital, paid-up.....	\$ 37,095,340	59,534,977	60,700,697	67,035,615	103,009,256
31	Assets.....	\$ 125,273,631	200,613,879	269,307,032	531,829,324	1,303,131,260
32	Liabilities to the public.....	\$ 80,250,974	127,176,249	187,332,325	420,003,743	1,097,661,393
33	Deposits payable on demand.....	\$ ..	..	..	95,169,631	304,801,755
34	Deposits payable after notice.....	\$ ..	..	..	221,624,664	568,976,209
35	Totals, deposits ^{4,5}	\$ 56,287,391	94,346,481	148,396,968	349,573,327	980,433,788
36	Bank debits.....\$'000	..	..	..	..	..
Savings Banks—						
37	Deposits in Post Office.....	\$ 2,497,260	6,208,227	21,738,648	39,950,813	43,330,579
38	Deposits in Government banks.....	\$ 2,072,037	9,628,445	17,661,378	16,098,146	14,673,752
39	Deposits in special banks.....	\$ 5,766,712	7,685,888	10,982,232	19,125,097	34,770,386
Loan Companies (Dominion)—						
40	Assets.....	\$ 8,392,464	73,906,638	125,041,146	158,523,307	389,701,988
41	Liabilities.....	\$ 8,392,958	71,965,017	123,915,704	158,523,307	389,701,988
Loan Companies (Provincial)—						
42	Assets.....	\$ ..	..	..	..	..
43	Liabilities.....	\$ ..	..	..	..	..

¹ Active assets only.
with later years.² Fiscal year ended nearest Dec. 31 of the year stated.⁴ As at June 30 from 1871 to 1901. Monthly averages from 1911 to 1951.³ Not comparable
⁵ Includes

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1939	1941	1943	1949	1950	1951	
259,431,110	134,433,268	127,835,146	171,835,408	176,446,946	377,392,843	484,475,331	542,641,169	1
61,722,390	28,629,914	32,757,666	34,845,584	36,476,082	74,096,446	86,967,642	125,562,023	2
243,608,342	90,151,516	100,866,078	161,138,512	195,283,341	333,031,836	364,508,831	483,520,382	3
57,449,384	34,923,391	33,703,149	36,739,071	40,284,489	86,326,584	100,365,624	137,046,510	4
245,625,703	116,209,368	183,159,650	431,622,365	420,190,144	891,551,452	980,229,068	1,332,251,363	5
55,651,319	38,666,648	42,108,374	94,758,269	115,566,684	174,691,723	215,526,566	290,848,483	6
208,095,113	106,087,909	132,823,892	189,953,788	250,943,166	535,328,513	611,741,427	684,535,336	7
37,887,449	31,336,994	43,705,905	65,382,196	70,548,287	130,660,078	158,221,055	191,812,947	8
72,688,072	47,659,378	54,095,674	262,516,457	429,337,751	159,127,766	172,217,594	296,638,265	9
1,240,158,882	628,098,386	751,055,534	1,448,791,650	1,735,076,890	2,761,207,241	3,174,253,138	4,084,856,478	
143.4	94.0	99.3	116.6	128.3	198.9	211.2	240.2	10
80.9	67.9	63.2	69.6	74.2	100.0	102.9	113.7	11
163,266,804	131,208,955	78,751,111	130,757,011	118,962,839	222,975,471	225,877,683	295,721,750	12
37,113,367	57,746,808	51,313,658	88,607,559	138,720,723	204,651,969	220,564,504	241,046,174	13
46,381,824	71,048,022	142,026,138	248,143,022	910,188,672	1,297,999,404	1,272,650,191	1,513,135,510	14
38,114,539	20,783,944	122,139,067	179,701,224	250,478,438	377,302,763	403,437,159	460,120,405	15
368,770,498	296,276,396	435,706,794	778,175,450	2,066,719,961	2,436,142,276	2,323,117,079	2,785,349,899	16
43.10	29.02	39.12	68.37	177.34	189.98	172.76	203.13	17
436,292,185	356,160,876	502,171,354	872,169,645	2,249,496,177	2,771,395,075	2,580,140,615	3,112,535,948	18
50.99	35.04	45.03	76.63	193.02	216.13	191.87	226.99	19
528,302,513	440,008,855	553,063,098	1,249,601,446	4,387,124,117	2,175,892,334	2,448,615,662	2,901,241,698	20
61.75	43.26	49.60	109.80	376.45	169.68	182.09	211.58	21
2,902,482,117	2,610,265,699	3,638,320,816	5,018,928,037	9,228,252,012	16,950,403,796	16,750,756,246	16,923,307,028	22
561,603,133	348,653,762	485,761,502	1,370,236,588	3,045,402,911	5,174,266,644	5,106,147,047	5,489,992,080	23
2,340,878,984	2,261,611,937	3,152,559,314	3,648,691,449	6,182,849,101	11,776,134,152	11,644,609,199	11,433,314,948	24
102,030,458	179,143,480	296,836,927	404,791,000 ²	435,771,000 ²	998,127,000 ²	..	..	25
102,569,515	190,754,202	289,467,574	349,818,000 ²	378,790,000 ²	935,814,000 ²	..	..	26
3,735 ³	3,261	4,373	6,594	..	13,194	14,555	17,229	27
194,621,710	128,881,241	88,820,636	78,761,049	49,082,172	14,731,992	..	..	28
271,531,162	153,079,362	184,904,919	406,433,409	773,426,716	1,267,520,386	1,293,238,910	1,360,679,422	29
129,096,339	144,674,853	145,500,000	145,500,000	145,500,000	145,500,000	145,500,000	146,502,115	30
2,841,782,079	3,066,018,472	3,591,564,586	4,008,331,256	5,148,453,722	8,657,764,277	9,015,109,852	8,384,800,263	31
2,556,454,190	2,741,554,219	3,298,351,099	3,711,870,680	4,849,222,532	8,310,215,001	8,660,173,804	9,019,780,755	32
551,914,643	573,604,394	741,733,241	1,088,198,370	1,619,407,736	2,353,033,907	2,562,813,591	2,711,524,845	33
1,289,347,063	1,437,976,832	1,699,224,304	1,616,129,007	1,864,177,700	4,333,888,999	4,547,880,387	4,592,929,318	34
2,264,586,736	2,422,834,828	3,060,859,111	3,464,781,844	4,592,336,705	7,921,694,763	8,220,886,332	8,464,510,837	35
27,157,474 ⁴	31,586,468	31,617,352	39,242,957	53,796,715	87,554,363	100,635,469	112,184,633	36
29,010,619	24,750,227	23,045,576	22,176,633	24,873,991	37,741,389	38,754,634	37,661,921	37
10,150,189	69,820,422	81,566,754	76,391,775	84,023,772	184,250,615	192,567,275	193,982,871	38
58,576,775								39
96,698,810	147,094,183	136,358,786	130,795,391	126,943,566	179,795,977	190,733,017	203,103,850	40
95,281,122	146,046,087	136,351,602	130,787,116	126,918,948	144,414,068	152,825,544	165,768,886	41
86,144,153 ⁷	65,728,238	58,526,904	58,220,073	59,081,710	80,207,903	89,504,876	88,991,635	42
87,385,807 ⁷	66,387,987	58,533,671	58,220,073	59,081,710	51,546,444	59,893,359	63,699,805	43

amounts deposited elsewhere than in Canada from 1901.

⁶ Figures for 1924; first year bank debits are available.

⁷ Figures for 1922; first year provincial figures are available.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
	Licensees under the Small Loans Act—					
	SMALL LOANS COMPANIES—					
1	Assets..... \$	..	..	..	..	..
2	Liabilities..... \$	..	..	..	..	..
	MONEYLENDERS—					
3	Assets..... \$	..	..	..	..	..
4	Liabilities..... \$	..	..	..	..	..
	Trust Companies (Dominion)—					
	ASSETS—					
5	Company funds..... \$	..	..	..	..	..
6	Guaranteed funds..... \$	..	..	..	..	..
	LIABILITIES—					
7	Company funds..... \$	..	..	..	..	..
8	Guaranteed funds..... \$	..	..	..	..	..
9	ESTATES, TRUST AND AGENCY FUNDS. \$	..	..	..	..	..
	Trust Companies (Provincial)—¹					
	ASSETS—					
10	Company funds (par value).... \$	..	..	..	..	..
11	Guaranteed funds (par value)... \$	..	..	..	..	..
12	ESTATES, TRUST AND AGENCY FUNDS. \$	..	..	..	..	..
	Dominion Fire Insurance—					
13	Amounts at risk, Dec. 31..... \$	228,453,784	462,210,968	759,602,191	1,038,687,619	2,279,868,346
14	Premium income for each year.... \$	2,321,716	3,827,116	6,168,716	9,650,348	20,575,255
15	Claims paid during each year..... \$	1,549,199	3,169,824	3,905,697	6,774,956	10,936,948
	Provincial Fire Insurance—					
16	Amounts at risk, Dec. 31..... \$	..	..	..	..	..
17	Premium income for each year.... \$	..	..	..	..	..
18	Claims paid during each year..... \$	..	..	..	..	..
	Dominion Life Insurance—²					
19	Amounts in force, Dec. 31..... \$	45,825,935	103,290,932	261,475,229	463,769,034	950,220,771
20	Premium income for each year.... \$	1,852,974	3,094,689	8,417,702	15,189,854	31,619,626
21	Claims paid during each year..... \$	..	..	..	6,845,941	11,051,679
	Provincial Life Insurance—					
22	Amounts in force, Dec. 31..... \$	..	..	..	..	..
23	Premium income for each year.... \$	..	..	..	..	..
24	Claims paid during each year..... \$	..	..	..	..	..

¹ Compiled from data supplied voluntarily to the Superintendent of Insurance by provincial companies but estimated to cover about 90 p.c. of all provincial business. The figures include all the large and most of the small provincial companies.

² Not including fraternal insurance.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—concluded

1921	1931	1939	1941	1943	1949	1950	1951	
..	827,373	5,466,679	7,918,926	10,596,366	48,921,948	61,207,841	..	1
..	823,120	5,424,047	7,918,926	10,596,366	48,921,947	61,207,840	..	2
..	..	..	11,351,467	11,372,306	24,002,353	27,321,717	..	3
..	..	..	11,351,467	11,372,306	24,002,354	27,321,718	..	4
10,237,930	15,459,347	20,176,418	20,596,781	20,569,787	26,244,737	27,988,873	27,649,090	5
8,774,185	25,718,219	36,001,000	38,570,855	41,504,191	90,111,500	93,082,706	93,852,292	6
9,907,331	15,066,431	19,351,839	20,086,776	20,168,350	25,892,736	27,568,241	27,619,247	7
8,549,642	25,718,221	36,001,000	38,570,855	41,504,191	90,111,501	93,082,707	93,852,292	8
79,252,639	215,698,469	242,369,850	268,596,524	313,457,551	560,080,611	494,636,746	543,983,754	9
31,418,403	66,338,148	61,292,364	58,165,471	60,385,651	68,188,785	72,736,140	74,399,404	10
32,885,302	125,829,165	114,606,960	108,912,208	112,006,133	213,671,444	251,832,240	258,413,136	11
629,953,917	1,961,948,175	2,422,219,901	2,418,950,841	2,528,566,545	2,827,988,797	3,126,058,749	3,282,558,573	12
6,020,513,832	9,544,611,293	10,200,346,551	11,386,819,286	13,386,782,873	25,970,407,358	28,957,395,702	33,493,682,527	13
47,312,564	50,342,669	40,984,276	49,305,539	47,153,094	103,809,769	115,648,449	134,489,297	14
27,572,560	29,938,409	15,738,902	17,814,322	22,181,244	46,548,822	58,524,685	52,062,710	15
1,269,764,435	1,341,181,333	1,284,998,454	1,120,181,968	1,273,362,246	2,378,050,919	2,519,157,284	2,436,138,680	16
5,545,519	7,185,066	5,750,302	3,992,765	4,552,312	10,181,704	10,519,555	10,137,388	17
3,544,820	4,985,605	3,170,597	2,237,832	2,138,273	5,749,817	6,228,632	5,435,836	18
2,934,843,848	6,622,267,793	6,776,262,587	7,348,550,742	8,534,093,718	14,408,761,850	15,745,836,067	17,235,376,811	19
98,864,371	225,100,571	198,042,144	203,459,238	228,700,002	349,813,007	370,091,234	394,012,852	20
23,997,262	56,579,358	73,936,661	75,082,008	81,900,064	117,933,354	122,295,000	128,490,359	21
222,871,178	202,094,301	134,554,434	164,451,218	226,312,273	600,994,643	709,395,888	708,733,573	22
4,389,008	5,178,615	3,491,402	3,988,952	5,481,130	13,970,109	17,241,427	16,806,502	23
2,812,077	2,603,453	3,178,604	2,583,958	2,937,710	5,053,498	6,860,882	6,727,241	24

SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:—

. . figures not available.

... figures not appropriate or not applicable.

— nil or zero.

- - amount too small to be expressed or where "a trace" is meant.

^p preliminary figures.

^r revised figures.

CHAPTER I.—PHYSIOGRAPHY AND RELATED SCIENCES

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found on the facing page.

PART I.—GEOGRAPHY*

Canada comprises the whole northern part of the North American Continent, except for the territory of Alaska. The most easterly point is Cape Spear, Newfoundland, at west longitude 52° 37', and the most westerly point is Mount St. Elias, Yukon, at west longitude 141°. The southernmost point is Middle Island in Lake Erie at north latitude 41° 41' and northward Canada extends to the North Pole and includes the Arctic Archipelago between Davis Strait, Baffin Bay and the connecting waters northward to and along the 60th meridian on the east and the 141st meridian on the west. Thus Canada covers in all 48° of latitude and 88° of longitude. It is bounded on the west by the Pacific Ocean and the 1,539.8 linear miles of Alaskan territory, on the south by the United States, a distance of 3,986.8 miles, and on the east by the Atlantic Ocean, Davis Strait and the dividing waters between Ellesmere Island and the Danish territory of Greenland.

Canada is the second largest country in the world, having an area of 3,845,774 sq. miles. It is superseded in size only by the Union of Soviet Socialist Republics with 8,598,679 sq. miles.† Other comparisons are: China 3,759,181 sq. miles,† continental United States and Alaska 3,608,644 sq. miles,† the Continent of Europe (excluding the European part of the Soviet Union) 1,913,126 sq. miles† and Australia 2,974,463 sq. miles.†

The sea-coast of Canada comprises the following estimated mileages:—

Mainland.—Atlantic 6,111, Pacific 1,579, Hudson Strait 1,245, Hudson Bay 3,157, Arctic 5,771; total 17,863 miles.

Islands.— Atlantic 8,677, Pacific 3,979, Hudson Strait 60, Hudson Bay 2,307, Arctic 26,786; total 41,809 miles.

* Revised by the Geographical Branch, Department of Mines and Technical Surveys, Ottawa.

† Taken from the United Nations Statistical Year Book, 1949-50.

Canada's fresh-water area is extensive, constituting over 6 p.c. of the total area of the country. Its inland waterways, particularly with respect to transportation and the development of electric power, are among the most vital influences in the national economy.

1.—Approximate Land and Fresh-Water Areas, by Provinces and Territories

NOTE.—For a classification of land area as agricultural, forested, etc., see p. 19.

Province or Territory	Land	Fresh Water	Total	Percentage of Total Area
	sq. miles	sq. miles	sq. miles	
Newfoundland.....	147,994	7,370 ¹	155,364	4.0
Island of Newfoundland.....	40,559	2,175	42,734	1.1
Coast of Labrador.....	107,435 ¹	5,195 ¹	112,630 ¹	2.9
Prince Edward Island.....	2,184	--	2,184	0.1
Nova Scotia.....	20,743	325	21,068	0.6
New Brunswick.....	27,473	512	27,985	0.7
Quebec.....	523,860	71,000	594,860	15.5
Ontario.....	363,282	49,300	412,582	10.7
Manitoba.....	219,723	26,789	246,512	6.4
Saskatchewan.....	237,975	13,725	251,700	6.6
Alberta.....	248,800	6,485	255,285	6.6
British Columbia.....	359,279	6,976	366,255	9.5
Yukon Territory.....	205,346	1,730	207,076	5.4
Northwest Territories.....	1,253,438	51,465	1,304,903	33.9
Franklin.....	541,753	7,500	549,253	14.3
Keewatin.....	218,460	9,700	228,160	6.0
Mackenzie.....	493,225	34,265	527,490	13.7
Canada.....	3,610,097	235,677	3,845,774	100.0

¹ Based on estimates.

Section 1.—Physical Geography

Subsection 1.—Physiographic Divisions

Canada divides naturally into four major physiographic regions which are differentiated by geological history and structure. They include the Canadian Shield, the Appalachian Region, the Interior Plains Region and the Cordilleran Region. A fifth division, about which much less is known, includes a belt of folded rocks of Palæozoic and Mesozoic age in the northern part of the Arctic Archipelago. The following is a short description of these regions from the standpoint of topography and geology.

The Canadian Shield.—The Canadian Shield is a vast V-shaped area of approximately 1,800,000 sq. miles surrounding Hudson Bay and extending from the coast of Labrador west to the Interior Plains Region and south to the International Border. It is an area, for the most part, of low relief rarely rising more than 1,500 to 2,000 feet above sea-level, except in Labrador where altitudes of 5,000 feet occur. Its surface is hummocky, marked by irregular hills and ridges but these, over wide areas, do not rise more than 100 to 200 feet above the adjacent lakes and valleys. The numerous lakes and rivers which are everywhere so characteristic of the Shield—for it is the great lake region of the world, probably containing more lakes than all the rest of the world put together—were formed during the Glacial or Pleistocene period as the result of erosion and deposition by continental glaciers which covered the region during the Pleistocene epoch.

One of these ice sheets gathered west of Hudson Bay, another in the heart of Labrador. From these centres the ice moved out in all directions and in its advance scoured off the residual soil, smoothed down the topography, polished and striated rock surfaces and, by scattering debris irregularly, completely disorganized the drainage. The result was the formation of thousands of lakes of all sizes and shapes. In some of the temporary lakes situated in front of the ice during its retreat, clay and other fine stratified deposits accumulated forming what are known as clay belts.

Geologically, the rocks of the Shield are all very old having been formed in Precambrian time but include sedimentary, volcanic and intrusive varieties of widely different ages. In succeeding eras, the Shield suffered vertical movement at intervals but it has been unaffected by folding or mountain-building deformation. The Canadian Shield is a great storehouse of mineral wealth, particularly of metals. Its gold ores, the copper-zinc-sulphide replacement deposits of Noranda, Flin Flon, etc., and many other ore-occurrences were formed by mineralization given off by intrusive masses during the late stages of their cooling. In eastern Ontario and western Quebec, where granite has intruded limestone and other sediments, there occur deposits of mica, graphite, feldspar, magnesite, fluorite and other minerals.

The Appalachian Region.—This Region includes the Provinces of Nova Scotia, New Brunswick, Prince Edward Island, the Island of Newfoundland and that part of Quebec lying south and east of the St. Lawrence River. It is mountainous or hilly, the highest elevation—4,200 feet—is that of Mount Jacques Cartier on Tabletop Mountain, in the Shickshock Range in central Gaspe.

The rocks of this Region include sediments, volcanics and intrusives chiefly of Palæozoic age with rocks of Precambrian age in local areas on the Island of Newfoundland, New Brunswick, Cape Breton Island and southwestern Quebec. Ordovician strata in Newfoundland contain important deposits of iron. Rocks of Carboniferous age have large coal deposits and also gypsum. Zinc, lead and copper are mined at Red Indian Lake in Newfoundland and other mineral occurrences are known.

The Interior Plains Region.—The Interior Plains are part of the great plains region in the interior of the continent and, in Canada, extend through Manitoba, Saskatchewan, and Alberta northwest to the Arctic Ocean. Other areas, such as the St. Lawrence Lowlands stretching from Lake Huron northeasterly to Anticosti Island and the Hudson Bay Lowland bordering the west side of Hudson Bay, are regarded as outliers of this Region.

The Plains of Western Canada slope gently eastward from an elevation of 4,000 feet in western Alberta to about 500 feet in southern Manitoba; they show a flat surface interrupted by deep-incised valleys and by many flat-topped hills or mesas. Glacial deposits particularly clays laid down in glacial Lake Agassiz, which existed during the late stages of the melting of the Pleistocene ice sheet, are responsible for the soils that produce the wheat crops of Manitoba and Saskatchewan.

The border of the Mesozoic strata in Manitoba and Saskatchewan is a steep rise known as the Manitoba Escarpment. Westward the surface rises from 1,000 to 2,000 feet at the escarpment to 4,000 to 5,000 feet at the border with the mountains of the Cordilleran region. Bituminous coal, lignites, natural gas and bituminous

sands are found in these beds in Alberta and Saskatchewan, and gypsum and salt in Palæozoic strata in Manitoba. Devonian beds produce the important oil fields of Alberta and Norman Wells in the Mackenzie Valley, N.W.T.

The St. Lawrence Lowland falls into three subdivisions, the first and most westerly includes Manitoulin Island and that part of Ontario facing on Lakes Erie and Ontario. It shows a prominent topographical feature, the Niagara Escarpment, an abrupt rise of 250 to 300 feet extending from the Niagara River to Bruce Peninsula. The second subdivision extends from the east side of the Frontenac axis (a southward projection of the Canadian Shield that crosses the St. Lawrence River between Kingston and Brockville, Ont.) east to Quebec City, and the third subdivision comprises Anticosti Island and the Mingan Islands.

The strata of the entire belt of the St. Lawrence Lowlands are of Palæozoic age. They lie horizontally or with low dips, are mainly of marine origin, and were deposited in seas that swept over a large part of the continent. Vertical movements caused these seas to advance and retreat so that the sediments deposited vary considerably. On Anticosti Island the rocks are of Upper Ordovician and Silurian age. The mineral occurrences in the St. Lawrence Lowlands are petroleum and natural gas, salt, gypsum, limestone, dolomite and also clay which can be used for the manufacture of bricks, tiles and cement.

The Hudson Bay Lowland, the other outlier of the Interior Plains, is underlain by flat-lying rocks mostly of Palæozoic age ranging from Ordovician to Devonian. It rises from sea-level with a very gradual gradient to a height of 400 feet. Lignite occurs in the Moose River Basin in beds of Upper Jurassic or Lower Cretaceous age overlying the Devonian beds.

The Cordilleran Region.—The Cordilleran Region comprises the mountainous country bordering the Pacific Ocean and covers an area of 600,000 sq. miles. It is made up of three zones. On the east is the Rocky Mountain Range, on the west along the coast is the Coast Range, and between the two is a third belt made up of upland and mountainous country.

The Rocky Mountains have a maximum width of 100 miles and peaks and elevations of from 10,000 to 12,000 feet. The Coast Range varies in width from 50 to 100 miles and rises abruptly from the coast to peaks of from 7,000 to 10,000 feet.

The northern part of the interior belt, known as the Yukon plateau, is a gently rolling upland broken into a series of flat-topped ridges by valleys several thousand feet deep; the southern part in British Columbia, rises from 3,000 to 4,000 feet above sea-level. To the east between the upland and the Rocky Mountains are a series of mountain ranges, the Selkirks with peaks of 11,000 feet being the most important.

The geological history of the Cordilleran is complex but may be summarized as follows. In Precambrian time sediments which are now in the form of limestones, gneisses and schists were deposited in the interior belt. In Yukon, these strata are known as the Yukon group and in central British Columbia as the Shuswap group. These have been altered by intrusive rocks and included with them are the

metamorphosed phases of much later rocks. In late Precambrian time argillites and related sediments accumulated on the site of the southern Rockies and in the region now occupied by the Purcell Mountains which are made up dominantly of quartzites of a thickness of over 20,000 feet. Sedimentation progressed during the Palæozoic era from Cambrian to Carboniferous time, and also during that of Mesozoic. Volcanism, the intrusion of granites, and mountain-building took place in the western part of the belt during the Jurassic period giving rise to the Selkirk and Coast Ranges. In late Cretaceous time and continuing over into the Tertiary, pressure from the west folded the rocks in the eastern part of the region giving rise to the Rocky Mountains.



The Cordilleran Region is a producer of gold (both lode and placer), silver, lead and zinc, and contains deposits also of mercury, tungsten and iron. Most of the known mineral occurrences are in the Western Cordilleran Belt and are related to late Mesozoic and early Tertiary granitic intrusions. Coal is widespread in the foothills of Alberta and oil and petroleum are also found in this area. Fluorite, gypsum, magnesite, hydromagnesite phosphate, saline deposits, and limestone form other valuable mineral occurrences.

For further details see Year Book 1947, pp. 19-29, and Year Book 1951, pp. 14-26.

Subsection 2.—Hydrographic Features

Lakes and Rivers.—Canada's fresh water lakes and rivers cover an area of 235,677 sq. miles. The outstanding lakes are, of course, the Great Lakes, though only part of these are in Canadian territory. The International Boundary between Canada and the United States passes through Lakes Superior, Huron, St. Clair, Erie and Ontario. Details are given in Table 2.

2.—Areas, Elevations, and Depths of the Great Lakes

Lake	Elevation Above Sea-level	Length	Breadth	Maximum Depth	Total Area	Area on Canadian Side of Boundary
	ft.	miles	miles	ft.	sq. miles	sq. miles
Superior.....	602-23	383	160	1,302	31,820	11,200
Michigan (U.S.A.).....	580-77	321	118	923	22,400	—
Huron.....	580-77	247	101	750	23,010	13,675
St. Clair.....	575-30	26	24	23	460	270
Erie.....	572-40	241	57	210	9,940	5,094
Ontario.....	245-88	193	53	774	7,540	3,727

There are no tides in these Great Lakes although considerable variation in water-levels is occasioned by strong winds or heavy precipitation.

Other large lakes of Canada, ranging in area from 9,000 to 12,000 sq. miles, are Lake Winnipeg, Great Slave Lake and Great Bear Lake. Apart from these, notable for size, there are innumerable lakes scattered over that major portion of Canada lying within the Canadian Shield. In an area of 6,094 sq. miles, accurately mapped, south and east of Lake Winnipeg, there are 3,000 lakes. In an area of 5,294 sq. miles accurately mapped southwest of Reindeer Lake in Saskatchewan, there are 7,500 lakes.

3.—Areas and Elevations of Principal Lakes, by Provinces and Territories

NOTE.—Areas given are for mean water levels. In the case of those reservoirs and lakes for which two elevations are given, HW means high water, LW low water, and N normal level.

Province and Lake	Elevation	Area	Province and Lake	Elevation	Area
	ft.	sq. miles		ft.	sq. miles
Newfoundland—			Quebec—		
Deer.....	12	24	Abitibi (total, 350) part.....	868	55
Gander.....	86	49	Albanel.....	1,289	145
Grand.....	270	140	Baskatong (reservoir).....	HW 1,289 LW 677	109
Melville.....	sea-level	1,133	Bienville.....	..	392
Michikamau.....	1,650	566	Burnt (Brûlé).....	1,203	56
Red Indian.....	500	65	Cabonga (reservoir) (Kaka- bonga).....	HW 1,185 LW 1,169	66
Victoria.....	700	15	Champlain (total, 360) part....	95	18
			Chibougamau.....	1,253	138
Nova Scotia—			Clearwater.....	790	410
Bras d'Or.....	tidal	360	d'Iberville.....	..	260
			Evans.....	612	180
			Goëland.....	660	125
			Indian House.....	..	125
New Brunswick—			Kaniapiskau.....	1,850	210
Grand.....	tidal	65	Kempt.....	1,372	63
			Kipawa.....	884	95
			Lower Seal.....	860	130

3.—Areas and Elevations of Principal Lakes, by Provinces and Territories—continued

Province and Lake	Elevation	Area	Province and Lake	Elevation	Area
	ft.	sq. miles		ft.	sq. miles
Quebec—concluded			Manitoba—concluded		
Manicouagan.....	..	110	Cross Nelson River.....	679	274
Manuan.....	1,340	100	Dauphin.....	853	200
Maricourt.....	..	110	Dog.....	815	64
Mattagami.....	615	83	Etawnei.....	..	28
Minto.....	..	485	Gods.....	585	319
Mistassini.....	1,243	840	Goose.....	935	53
Nichikun.....	1,760	150	Granville.....	850	181
Olga.....	635	50	Island.....	744	550
Payne.....	..	230	Kamuchawie (total, 56) part.....	1,153	30
Pipmakan.....	..	90	Kipahigan (total, 59) part.....	963	29
Pletipi.....	..	138	Kiskittogisu.....	709	99
Quinze, des.....	HW 867	55	Kiskitto.....	696	65
..	N 857		Kississing.....	920	141
St. Francis, River St. Law-	LW 151	63	Manitoba.....	813	1,817
rence (total, 83) part.....	N 153		Molson.....	..	525
St. John.....	321	375	Moose.....	873	8
St. Louis.....	LW 65	57	Namew (total, 79) part.....	725	150
..	N 67		Northern Indian.....	..	76
St. Peter.....	LW 11	130	Nueltin (total, 336) part.....	..	155
Simard.....	856	59	Oxford.....	612	54
Timiskaming (total, 110) part	HW 593	55	Paint.....	615	55
..	N 584		Pelican, west of Lake Winni-	..	80
Two Mountains.....	72	63	pegosis.....	837	80
Waswanipi.....	680	75	Playgreen.....	711	257
			Reed.....	911	78
			Red Deer, west of Lake Win-	..	86
			nipegosis.....	1,150	386
			Reindeer (total, 2,444) part.....	798	125
			St. Martin.....	737	49
			Setting.....	598	201
			Sipiwek.....	915	73
			Sisipuk (total, 99) part.....	835	1,060
			Southern Indian.....	..	75
			Stevenson.....	849	100
			Swan.....	845	72
			Talbot.....	..	156
			Todatara (total, 241) part.....	1,121	62
			Walker.....	829	90
			Waterhen.....	840	64
			Wekusko.....	713	9,094
			Winnipeg.....	831	2,086
			Winnipegosis.....	..	69
			Woods, Lake of the (total,	HW 1,062	1,485 ¹ part (reservoir).
			1,485 ¹ part (reservoir).	LW 1,056	
Ontario—			Saskatchewan—		
Abitibi (total, 350) part.....	868	295	Amisk.....	964	168
Dog.....	1,378	61	Athabaska (total, 3,058) part.....	699	2,165
Eagle.....	1,192	137	Besnard.....	1,294	72
Erie (total, 9,940) part.....	572	5,094	Black Birch.....	1,517	54
Huron, including Georgian	..	13,675	Candle.....	1,620	56
Bay (total, 23,010) part.....	581		Sipiwek.....	1,415	78
Kesagami.....	..	90	Canoe.....	1,382	213
La Croix (total, 55) part.....	1,181	25	Churchill.....	1,756	36
Long.....	1,025	75	Cold (total, 136) part.....	1,541	350
Manitou, Kenora.....	1,215	60	Cree.....	871	93
Mille Lacs, Lac des.....	1,491	102	Cumberland.....	1,072	209
Minnitaki.....	1,177	72	Deschambault.....	1,506	248
Nipigon.....	632	1,870	Doré.....	1,379	165
Nipissing.....	643	330	Ile-a-la-Crosse.....	1,153	26
Nipissing.....	246	3,727	Kamuchawie (total, 56) part.....	963	30
Ontario (total, 7,540) part.....	HW 1,108	275	Kipahigan (total, 59) part.....	1,476	90
Rainy (total, 345) part (reser-	LW 1,103		Winnipeg.....	1,250	450
voir).....	1,157	69	La Plonge.....	1,608	89
Red.....	575	270	Last Mountain.....	1,459	70
St. Clair (total, 460) part.....	..	20	Loche, la.....	1,608	162
St. Francis, River St. Law-	LW 151	187	Montreal.....	873	71
rence (total, 83) part.....	N 153		Amisk.....	1,259	63
St. Joseph.....	1,219	270	Nemibeen.....	1,382	302
Sandy.....	1,190	270	Peter Pond.....	1,964	173
Seul (reservoir).....	HW 1,172	530	Primrose (total, 181) part.....	..	..
Simcoe.....	LW 1,156		Candle.....	..	..
Stout, Berens River.....	718	280	..	..
Sturgeon, English River.....	1,039	50	..	..
Superior (total, 31,820) part.....	1,342	110	..	..
Timagami.....	602	90	..	..
Timiskaming (total, 110) part	HW 593	55	..	..
..	N 584		..	..
Trout, English River.....	1,294	156	..	..
Trout, Severn River.....	..	215	..	..
Woods, Lake of the (total,	HW 1,062	953	..	..
1,485 ¹ part (reservoir).	LW 1,056		..	..
			
Manitoba—			Saskatchewan—		
Athapuskow.....	951	104	Amisk.....	964	168
Atikameg.....	855	112	Athabaska (total, 3,058) part.....	699	2,165
Beaverhill.....	651	70	Besnard.....	1,294	72
Cedar.....	829	537	Black Birch.....	1,517	54
Cormorant.....	840	134	Candle.....	1,620	56
			Cane.....	1,415	78
			Canoe.....	1,382	213
			Churchill.....	1,756	36
			Cold (total, 136) part.....	1,541	350
			Cree.....	871	93
			Cumberland.....	1,072	209
			Deschambault.....	1,506	248
			Doré.....	1,379	165
			Ile-a-la-Crosse.....	1,153	26
			Kamuchawie (total, 56) part.....	963	30
			Kipahigan (total, 59) part.....	1,476	90
			La Plonge.....	1,250	450
			La Ronge.....	1,608	89
			Last Mountain.....	1,459	70
			Loche, la.....	1,608	162
			Montreal.....	873	71
			Namew (total, 79) part.....	1,259	63
			Nemibeen.....	1,382	302
			Peter Pond.....	1,964	173
			Primrose (total, 181) part.....	..	..

¹ Total includes 463 sq. miles in U.S.A.

3.—Areas and Elevations of Principal Lakes, by Provinces and Territories—concluded

Province and Lake	Elevation ft.	Area sq. miles	Province or Territory and Lake	Elevation ft.	Area sq. miles
Saskatchewan—concluded			British Columbia—concluded		
Quill.....	1,704	236	Teslin (total, 161) part.....	2,250	65
Reindeer (total, 2,444) part.....	1,150 ¹	2,058	Upper Arrow.....	1,395	88
Riou.....	..	75	Northwest Territories—		
Sisipuk (total, 99) part.....	915	26	Aberdeen.....	130	475
Smoothstone.....	1,572	110	Artillery.....	1,190	207
Snake.....	1,262	159	Aylmer.....	1,230	340
Tazin.....	1,130	156	Baker.....	30	975
Wollaston.....	1,300	768	Clinton-Colden.....	1,226	253
Alberta—			Dubawnt.....	500	1,690
Athabaska (total, 3,058) part.....	699	893	Faber.....	753	163
Beaverhill.....	2,202	80	Franklin.....	..	175
Biche, la.....	1,784	94	Garry.....	..	980
Buffalo.....	2,566	56	Gras, de.....	1,300	345
Calling.....	1,947	55	Great Bear.....	391	12,000
Claire.....	699	545	Great Slave.....	495	11,170
Cold (total, 136) part.....	1,756	100	Hardisty.....	699	107
Lesser Slave.....	1,893	461	Hottah.....	..	377
Mamawi.....	699	64	Kaminuriak.....	320	265
Peerless.....	2,267	75	Macdougall.....	..	265
Primrose (total, 181) part.....	1,964	8	Maguse.....	..	540
Sullivan (variable).....	2,652	62	Martre, la.....	..	685
Utikuma.....	2,105	85	Mackay.....	1,415	250
British Columbia—			Marian.....	495	90
Adams.....	1,334	52	Nueltin (total, 336) part.....	..	260
Atlin (total, 308) part.....	2,200	307	Nutarawit.....	..	350
Babine.....	2,330	194	Pelly.....	..	331
Chilko.....	3,842	75	Point.....	..	295
Eutsuk.....	2,817	96	Rae.....	748	77
François.....	2,345	91	Schultz.....	115	110
Harrison.....	34	87	Thalintoo.....	..	160
Kootenay.....	1,741	168	Todatara (total, 241) part.....	..	85
Kotcho (unsurveyed and estimated).....	..	90	Yathkyed.....	300	860
Lower Arrow.....	1,379	59	Yukon Territory—		
Okanagan.....	1,123	136	Aishihik.....	..	107
Ootsa.....	2,666	50	Atlin (total, 308) part.....	2,200	1
Quesnel.....	2,375	100	Kluane.....	2,500	184
Shuswap.....	1,137	120	Kusawa.....	2,565	56
Stuart.....	2,225	139	Laberge.....	2,100	87
Tagish (total, 138) part.....	2,148	93	Tagish (total, 138) part.....	2,148	45
Takla.....	2,270	102	Teslin (total, 161) part.....	2,250	96

The river systems of Canada, excluding those of the Arctic Archipelago, are best studied by segregating the main drainage basins as shown in Table 4.

4.—Drainage Basins

NOTE.—Classified by the Engineering and Water Resources Branch, Department of Resources and Development.

Drainage Basin	Area Drained ¹ sq. miles	Drainage Basin	Area Drained ¹ sq. miles
Atlantic Basin		Arctic Basin	
Atlantic Provinces.....	213,885	Great Slave Lake.....	370,681
Great Lakes and St. Lawrence River...	359,312	Arctic.....	559,676
Total.....	573,197	Total.....	930,357
Hudson Bay Basin		Pacific Basin	
Northern Quebec.....	343,259	Pacific.....	273,540
Southwest Hudson Bay.....	283,997	Yukon River.....	127,190
Nelson River.....	368,182	Total.....	400,730
Western Hudson Bay.....	383,722	Gulf of Mexico Basin	
Total.....	1,379,160	Area, Canada Less Arctic Archipelago	
		3,310,396	

¹ Areas are approximate and are exclusive of those portions of the basins of all rivers that lie in United States territory.

In Eastern Canada, the Great Lakes and St. Lawrence drainage basin dominates all others and forms an unequalled system of navigable inland waterways through a region rich in natural and industrial resources. From the head of Lake Superior to the entrance of the Gulf of St. Lawrence, the distance is 2,338 miles. The St. Lawrence waterway and its tributaries, most of which have lakes available for reservoiring, have very large developed and potential power resources.

The greater part of Canada drains into Hudson Bay and the Arctic Ocean; the Nelson River drainage is exceptional in running *through* the most arable and the most settled part of Western Canada, but otherwise the rivers of the West, east of the Rockies, run *away* from the settled areas towards the cold northern salt waters and this adversely affects their industrial utility. The Mackenzie River, which drains Great Slave Lake, is, with its headwaters, the longest river in Canada (2,635 miles) and its valley constitutes the natural transportation route through the Northwest Territories down to the Arctic Ocean. From Fort Smith, on the Slave River, large river boats run without any obstruction down to Aklavik in the delta of the Mackenzie, a distance of 1,292 miles. Table 5 gives the lengths of the principal rivers with their tributaries classified according to the four major drainage basins.

5.—Lengths of Principal Rivers and Tributaries

NOTE.—In this table the tributaries and sub-tributaries are indicated by indentation of the names. Thus the Ottawa and other rivers are shown as tributary to the St. Lawrence, and the Gatineau and other rivers as tributary to the Ottawa.

Drainage Basin and River	Length miles	Drainage Basin and River	Length miles
Flowing into the Atlantic Ocean		Flowing into the Atlantic Ocean—concl.	
St. Lawrence (to head of St. Louis, Minn.)	1,900	Natashquan	241
Ottawa	696	Moisie	210
Gatineau	240	Hamilton	208
du Lièvre	205	Exploits	153
Coulonge	135	Naskaupi	152
Madawaska	130	Canairiktok	139
Rouge	115	Eagle	138
Mississippi	105	Miramichi	135
Petawawa	95	Marguerite	130
South Nation	90	Gander	102
Dumoine	80		
North	70	Flowing into Hudson Bay	
North Nation	60	Nelson (to head of Bow)	1,600
Saguenay (to head of Peribonca)	475	Saskatchewan (to head of Bow)	1,205
Peribonca	280	South Saskatchewan	865
Mistassini	185	Red Deer	385
Ashuapmuchuan	165	Bow	315
St. Maurice	325	Belly	180
Mattawin	100	North Saskatchewan	760
Manicouagan (to head of Racine-de-Bouleau)	310	Red (to head of Shéyenne)	545
Ottardes	270	Assiniboine	590
Bersimis	240	Souris	450
Richelieu	210	Qu'Appelle	270
St. Francis	165	Winnipeg (to head of Firesteel)	475
Chaudière	120	English	330
Via the Great Lakes—		Churchill	1,000
French (to head of Sturgeon)	180	Beaver	305
Sturgeon	110	Kokoak (to head of Kaniapiskau)	660
Grand	165	Kaniapiskau	575
Thames	163	Severn (to head of Black Birch)	610
Spanish	153	Albany (to head of Cat)	610
Trent	150	Dubawnt	580
Mississagi	140	Eastmain	510
Nipigon (to head of Ombabika)	130	Fort George (to Nicheun Lake)	480
Mora	60	Attawapiskat	465
Thessalon	40	Kazan	455
St. John	418	Nottaway (to head of Waswanipi)	400
Romaine	270	Waswanipi	190

5.—Lengths of Principal Rivers and Tributaries—concluded

Drainage Basin and River	Length miles	Drainage Basin and River	Length miles
Flowing into Hudson Bay—concluded		Flowing into the Pacific Ocean—concl.	
Nelson (to head of Lake Winnipeg).....	400	Columbia (in Canada).....	459
Rupert.....	380	Kootenay (total).....	407
Red (to head of Lake Traverse).....	355	Kootenay (in Canada).....	276
George (to Hubbard Lake).....	345	Skeena.....	360
Moose (to head of Mattagami).....	340	Bulkley (to head of Maxam Creek).....	160
Abitibi.....	340	Stikine.....	335
Mattagami.....	275	Alek.....	260
Missinabi.....	265	Nass.....	236
Hayes.....	300		
Winisk.....	295		
Whale.....	270		
Harrikanaw.....	250		
Great Whale.....	230		
Leaf.....	165		
Flowing into the Pacific Ocean		Flowing into the Arctic Ocean	
Yukon (mouth to head of Nisutlin).....	1, 979	Mackenzie (to head of Finlay).....	2, 635
Columbia (total).....	1, 150	Peace (to head of Finlay).....	1, 195
Fraser.....	850	Finlay.....	250
Thompson (to head of North Thompson).....	304	Smoky.....	245
North Thompson.....	210	Little Smoky.....	185
South Thompson (to head of Shuswap).....	206	Parsnip.....	145
Nechako.....	287	Athabaska.....	765
Stuart (to head of Driftwood).....	258	Pembina.....	210
Chilcotin.....	146	Liard.....	755
West Road (Blackwater).....	141	South Nahanni.....	350
Yukon (Int. Boundary to head of Nisutlin).....	714	Petitot.....	295
Porcupine.....	590	Fort Nelson.....	260
Lewes.....	338	Hay.....	530
Pelly.....	330	Peel (to head of Ogilvie).....	425
Stewart.....	320	Arctic Red.....	310
Macmillan.....	200	Slave.....	258
White.....	185	Twitya.....	200
		Back.....	605
		Coppermine.....	525
		Anderson.....	430
		Horton.....	275

Ocean Areas and Seas.—A comprehensive description of the oceanic areas and seas of Canada would include sciences such as oceanography, marine biology and meteorology. However, the basic factor in any study of the oceanic-continental margin is the physical relief of the sea-floor and the scope of the information presented here is, therefore, restricted to this and a few salient features of the Atlantic, Arctic and sub-Arctic and Pacific marginal seas surrounding Canada. For further details, see Year Book 1947, pp. 3-12.

Atlantic.—Incursions of the sea in the Atlantic coast are formed in depressions between crests of the Appalachian Mountain system as it dips to the ocean. The submerged Continental Shelf, protruding seaward from the shore, effects the transition from continental to oceanic conditions. This Shelf is distinguished by great width and diversity of relief. From the coast of Nova Scotia its width varies from 60 to 100 miles, from Newfoundland 120 to 50 miles (at the entrance of Hudson Strait), and northward it merges with that of the Polar Sea. The outer edge of the Shelf, known as the Continental Shoulder, is of varying depths of from 100 to 200 fathoms before the Shelf suddenly gives way to the steep declivity leading to abysmal depths. The over-all gradient of the Atlantic Continental Shelf is slight but the whole area is studded with shoals, plateaux, banks, ridges and islands and the coasts of Nova Scotia and Newfoundland are rugged and fringed with islets and shoals. Off Nova Scotia the 40-fathom line lies at an average of 12 miles from

the shore and constitutes the danger line for coastwise shipping. The whole sea-floor of the marginal sea appears to be traversed by channels and gulleys and is trenched with deep ravines cutting well into the Shelf.

The main topographical features of the Atlantic marginal sea-floor are attributed to glacial origin but land erosion is an important factor. Eroded materials are carried seaward by rivers, ice and wind, and wave action against cliffs and shore banks washes away enormous masses that are deposited over the surrounding sea-floor. Icebergs carry detritus gouged from the land and brought south by the Labrador Current. The conformation of the continental sea-floor is, therefore, constantly changing and navigation charts of Canada's eastern seaboard must be continuously revised.

Arctic and Sub-Arctic.—The submerged plateau protruding from the northern coast of North America is a major part of the Great Continental Shelf surrounding the North Polar Sea on which lie all the Arctic Islands of Canada, Iceland, Greenland and most of those of Europe and Asia. The Polar Shelf develops its maximum width on the 80th meridian of west longitude where it extends from the south of James Bay to the north coast of Ellesmere Island, a distance of over 2,000 miles.

The floor topography of this continental margin is somewhat hypothetical but sufficient has been charted to indicate an abrupt break at the northern oceanward edge. This steep continental terrace borders the whole western side of the Canadian Archipelago and constitutes one of the most striking and significant features of the Polar regions. From this declivity deep well-developed troughs, cut by glaciers, enter between the western group of islands. A ridge across Davis Strait on which the depth is about 200 fathoms separates this basin from the open Atlantic.

The incursions of the sea—Hudson Bay and Hudson Strait—bite deeply into the continent; the former is an inland sea 250,000 sq. miles in area. Soundings of Hudson Bay show an average depth of about 70 fathoms, the greatest charted depth in the centre of the Bay is 141 fathoms.

Hudson Strait separates Baffin Island from the continental coast and connects Hudson Bay with the Atlantic Ocean. It is 430 miles long and from 37 to 120 miles in width and its greatest charted depth of 481 fathoms is close inside the Atlantic entrance. Great irregularities of the sea floor are indicated but, except in inshore waters, few navigation hazards have been located.

Pacific.—The marginal sea of the Pacific differs strikingly from the other marine zones of Canada. The hydrography of British Columbia is characterized by bold, abrupt relief—repetition of the mountainous landscape. Numerous inlets penetrate the mountainous coast for distances of 50 to 75 miles. They are usually a mile or two in width and of considerable depth, with steep canyon-like sides. From the islet-strewn coast, the Continental Shelf extends from 50 to 100 sea-miles to its oceanward limit where depths of about 200 fathoms are found. There the sea-floor drops rapidly to the Pacific Deep, parts of the western slopes of Vancouver and Queen Charlotte Islands lying only four miles and one mile, respectively, from the edge of the declivity. These great detached land-masses are the dominant features of the Pacific marginal sea. Along the whole coast continuous navigation is afforded through an inside passage sheltered from the sea by a protective barrier of islands. As is to be expected in a region so irregular in hydrographic relief, shoals and pinnacle rocks are numerous, necessitating great caution in navigation.

Subsection 3.—Islands

The northern and western coasts of Canada are skirted by clusters of islands. Those on the north include a very large group within the Arctic Circle. On the west coast, Vancouver and the Queen Charlotte Islands are the largest and most important but the coast is studded with many small rocky islands.

The Island of Newfoundland forming part of the Province of Newfoundland, the Province of Prince Edward Island, Cape Breton Island forming part of the Province of Nova Scotia, Grand Manan and Campobello Islands forming part of the Province of New Brunswick, Anticosti Island and the Magdalen group included in the Province of Quebec are the chief islands off the eastern coast.

The most important islands of the inland waters are Manitoulin Island, 1,068 sq. miles in area, lying in Lake Huron, the so-called Thirty Thousand Islands of Georgian Bay and the Thousand Islands in the outlet from Lake Ontario into the St. Lawrence River.

Table 6 lists the islands of Canada that have an area of over 2,000 sq. miles.

6.—Areas of Principal Islands

Island	Area	Island	Area
	sq. miles		sq. miles
Arctic Ocean—		Arctic Ocean—concluded	
Baffin.....	197,754	Ellef Ringnes.....	3,719
Victoria.....	80,340	Cornwallis.....	2,660
Ellesmere.....	77,392	Amund Ringnes.....	2,027
Banks.....	25,675		
Devon.....	21,606	Atlantic Ocean—	
Melville.....	16,503	Newfoundland.....	42,734
Southampton.....	16,350	Cape Breton.....	3,970
Prince of Wales.....	13,736	Anticosti (Gulf of St. Lawrence).....	3,043
Axel-Heiberg.....	13,583	Prince Edward.....	2,184
Somerset.....	9,594		
Prince Patrick.....	7,192	Pacific Ocean—	
King William.....	5,106	Vancouver.....	12,408
Bylot.....	5,005		

Subsection 4.—Mountains

The predominant orographical feature in Canada is the Great Cordilleran Mountain System. The principal named peaks exceeding 11,000 feet in elevation are given in Table 7.

7.—Mountain Peaks 11,000 Feet or Over in Elevation, by Provinces and Mountain Ranges

NOTE.—The highest elevations of the mainland of Eastern Canada are peaks of the Torngats in Labrador which are about 5,000 feet and Mount Jacques Cartier, a peak of Tabletop Mountain in the Shickshock Range of the Gaspé District, Que., which rises to 4,200 feet.

Province, Mountain Range, and Peak	Elevation	Province, Mountain Range, and Peak	Elevation
	ft.		ft.
Alberta		Alberta—continued	
Rocky Mountains—		Rocky Mountains—continued	
Columbia ¹	12,294	Kitchener.....	11,500
Brazeau.....	12,250	Lyell ¹	11,495
The Twins.....	12,085	Hungabee ¹	11,457
Forbes.....	11,675	Athabaska.....	11,452
Alberta.....	11,902	King Edward ¹	11,400
Assiniboine ¹	11,874	Victoria ¹	11,365
Temple.....	11,870	Snow Dome ¹	11,340
	11,636	Stutfield.....	11,320

For footnote, see end of table.

7.—Mountain Peaks 11,000 Feet or Over in Elevation, by Provinces and Mountain Ranges—concluded

Province, Mountain Range, and Peak	Elevation ft.	Territory, Mountain Range, and Peak	Elevation ft.
Alberta—concluded		British Columbia—concluded	
Rocky Mountains—concluded		Rocky Mountains—concluded	
Joffre ¹	11,316	Chown.....	11,500
Murchison.....	11,300	Resplendent.....	11,240
Deltaform ¹	11,235	King George.....	11,226
Lefroy ¹	11,230	Jumbo.....	11,217
Alexandra ¹	11,214	The Helmet.....	11,160
Sir Douglas ¹	11,174	Whitehorn.....	11,101
Woolley.....	11,170	Bush.....	11,000
Lunette ¹	11,150	Sir Alexander.....	11,000
Hector.....	11,135		
Diadem.....	11,060	St. Elias Mountains—	
Clearwater.....	11,044	Fairweather ²	15,287
Edith Cavell.....	11,033	Root ²	12,860
Fryatt.....	11,026		
Coleman.....	11,000	Yukon Territory³	
Wilson.....	11,000	St. Elias Mountains—	
British Columbia		Logan.....	19,850
Coast Mountains—		St. Elias.....	18,008
Waddington.....	13,260	Lucania.....	17,150
Tiedemann.....	12,000	King.....	17,130
Selkirk Mountains—		Steele.....	16,439
Sir Sandford.....	11,590	Wood.....	15,885
Farnham.....	11,342	Vancouver.....	15,696
Hasler.....	11,113	Hubbard.....	14,950
Delphine.....	11,076	Alverstone.....	14,500
Huber.....	11,051	Walsh.....	14,498
Wheeler.....	11,023	McArthur.....	14,400
Selwyn.....	11,013	Augusta.....	14,070
Rocky Mountains—		Strickland.....	13,818
Robson.....	12,972	Newton.....	13,811
Clemenceau.....	12,001	Cook.....	13,760
Goodsir.....	11,676	Craig.....	13,250
Bryce.....	11,507	Badham.....	12,625
		Malaspina.....	12,150
		Jeannette.....	11,700
		Baird.....	11,375

¹ This peak is on the interprovincial boundary between Alberta and British Columbia. ² This peak is on the interprovincial boundary between British Columbia and Alaska. ³ All the listed peaks are on or near the Yukon-Alaska Boundary.

Section 2.—Economic Geography

Politically, Canada is divided into ten provinces and two 'territories'. Each of the provinces is sovereign in its own sphere, as set out in the British North America Act, 1867, and its amendments, and as new provinces have been organized they have been granted political status equivalent to that of the original provinces. Yukon and the Northwest Territories with their boundaries of to-day are administered by the Federal Government. The characteristics of each of the provinces and of the territories are reviewed below. Details of resources and their development are given in later chapters.

Newfoundland.—Newfoundland, once the oldest colony of the British Empire, is the newest and most easterly province of Canada. It comprises the Coast of Labrador, an area of 112,630 sq. miles on the mainland, and the Island of Newfoundland which lies across the Gulf of St. Lawrence. Separating the two portions is the Strait of Belle Isle, 11 miles in width at its narrowest point. From Nova Scotia across Cabot Strait the distance is 70 miles. The Island is triangular in shape, the three sides each being about 320 miles long, and it has an area of 42,734 sq. miles.

The climate of the Island is temperate, with cool summers, mild winters and evenly distributed rainfall. In Labrador climatic conditions are more severe.

The Island is a plateau of low, rolling relief, with its highest elevations in the west where summits in the Long Range Mountains exceed 2,500 feet. Much of the surface is barren and rocky with innumerable ponds and swamps, and the land is unsuitable for farming. The river valleys and the west coast are thickly forested and support a thriving wood-pulp industry. The deeply indented coast line has many harbours providing safe anchorage for the fishing vessels that support the important fishing industry. Fishing, mainly for cod, is carried on along the coasts of Newfoundland and Labrador and on the Grand Banks. The Province of Newfoundland has extensive mineral deposits. Iron ore is mined on Bell Island and lead-zinc-copper ore at Buchans in the interior of the Island, while the vast iron-ore and water-power resources of the Coast of Labrador are now in the first stages of development.

Prince Edward Island.—This, the smallest province of Canada, is about 120 miles in length, with an average width of 20 miles and an area of 2,184 sq. miles. Prince Edward Island lies 10 to 20 miles off the mainland, east of New Brunswick and north of Nova Scotia, and is separated from these provinces by Northumberland Strait.

The Island attains an altitude of about 450 feet above sea-level and is almost trisected by the deep indentations of Malpeque Bay and by the mouth of the Hillsborough River, which nearly meets Tracadie Bay on the north side. Its rich, red soil and red sandstone formations are distinctive features. The climate is tempered by the surrounding waters of the Gulf of St. Lawrence and, combined with fertile soil and sheltered harbours, offers great inducements to the pursuits of agriculture and fishing. The Province is noted for its production of seed potatoes, its lobster canneries, oyster beds and fur farms.

Nova Scotia.—The Province of Nova Scotia is 381 miles in length by 50 to 105 miles in width and has an area of 21,068 sq. miles almost surrounded by the Bay of Fundy, the Atlantic Ocean and the Gulf of St. Lawrence. The mainland is connected with the Province of New Brunswick by the Isthmus of Chignecto. The Island of Cape Breton, forming the northeast portion of the Province, is separated from the mainland by the narrow Strait of Canso and includes the famous salt-water Bras d'Or Lakes. On the Atlantic side, the mainland is generally rocky and open to the sweep of Atlantic storms, it is deeply indented and has numerous harbours providing safety for the large fishing fleets that support the extensive fishing industry of the Province. The slopes facing the Bay of Fundy and the Gulf of St. Lawrence are sheltered from the Atlantic by low mountainous ridges not exceeding an altitude of 1,500 feet and running through the centre of the Province. In striking contrast to the rocky Atlantic side, they present fertile plains and river valleys especially adapted by climate and situation to the growth of apples, pears and other fruits.

Nova Scotia is one of the leading provinces in the production of good-quality bituminous coal, which is well adapted to the production of coke and excellent for domestic use and for steam-raising purposes. The chief coalfields are at Sydney and Inverness on Cape Breton Island, and at Pictou and Cumberland on the mainland.

New Brunswick.—New Brunswick is nearly rectangular in shape with an area of 27,985 sq. miles. The Bay of Chaleur on the north, the Gulf of St. Lawrence and Northumberland Strait on the east, the Bay of Fundy on the south, and

Passamaquoddy Bay on the southwest, provide the Province with a very extensive sea-coast. It adjoins the State of Maine, U.S.A., on the west and the Province of Quebec on the north and northwest.

The surface of New Brunswick is mostly undulating, but to the east it attains its highest elevation of 2,690 feet in the vicinity of Grand Falls, on the St. John River. In the northeastern half of the Province extensive areas of Crown lands carry valuable stands of merchantable timber and numerous rivers provide access to the extensive lumbering areas. The Province is watered to the west and south by the St. John River, which, in its course of 400 miles, runs through country famed for its distinctive beauty.

Economically, the forest resources are of first importance followed by the fisheries, although large areas of rich agricultural land are found in the numerous river valleys, especially that of the lower St. John, and in the broad plains near the coast. The mineral resources of the Province are limited and include moderate amounts of coal, natural gas and petroleum.

Quebec.—Quebec is the largest province of Canada and occupies the area of North America directly east of Hudson Bay, with the exception of the four other Atlantic Provinces; adjoining it on the south are the United States and New Brunswick, with Ontario on the west. It has an area of 594,860 sq. miles. A large part of the surface is made up of Precambrian rocks of the Canadian Shield, which renders it unsuitable for agriculture. The Gulf of St. Lawrence and the River St. Lawrence penetrate the entire width of Quebec and divide the Eastern Townships and the Gaspé Peninsula to the south from the larger area of the Province to the north. North of the St. Lawrence the land takes the form of a ridge parallel to the river and rises from sea-level to the Height of Land (varying from 1,000 to 3,000 feet) from which it descends gently to sea-level at Hudson Bay and Hudson Strait.

With the exception of the treeless zone, extending north of latitude 58°, most of the Province supports a valuable tree growth varying from the mixed forests in the southwest to the coniferous forests in the east and north. In addition to extensive timber limits, which form the basis of a great pulp and paper industry, Quebec is the foremost of the provinces in the development of hydro-electric power and has available water-power resources, at ordinary minimum flow, almost equal to those of Ontario and Manitoba combined. Asbestos deposits of Quebec have long been known for their quality and extent, and extensive developments of gold and copper have taken place in the western part of the Province. Year by year the mineralized area is being extended and Quebec is now in second place in mineral production among the provinces. The fisheries in the St. Lawrence River and Gulf are important and inland waters abound in game fish. The climate and soil of the upper St. Lawrence Valley and of the Eastern Townships are well suited to general farming operations, including dairying and the production of vegetables and maple products on a commercial basis.

Ontario.—Lying between Quebec on the east and Manitoba on the west, Ontario has an area of 412,582 sq. miles and is usually regarded as an inland province but its southern boundary has a fresh-water shore line of 2,362 miles on the Great Lakes while its northern limits have a salt-water shore line of 680 miles on Hudson and James Bays. There is a tidal port at Moosonee at the southern end of James Bay.

The surface of Ontario is characteristic of the Canadian Shield, except in the southern triangle lying between the lower lakes and the Ottawa River where the surface is low and level. The highest point in Ontario is 2,120 feet, on the promontory at the northeastern corner of Lake Superior. Northwest from the Height of Land, the slope descends very gently to Hudson Bay where a large marginal strip (the Hudson Bay Lowlands) is less than 500 feet above sea-level.

Mining is a very important industry in the wide-spread Precambrian area. Although the Province is lacking in native coal it is rich in other minerals and contributes almost one-half of the total mineral production of Canada. Gold, silver, nickel, copper, zinc, magnesium, dolomite, gypsum, salt and other minerals are mined extensively and petroleum and natural gas are also found in the Ontario Peninsula.

The Great Lakes waterways system permits economic international transportation of iron ore and coal for Ontario's basic iron and steel industries. This advantage, together with an abundance of natural resources has made Ontario the foremost manufacturing province of Canada. Vast forest resources in proximity to hydro-power form the basis of a large pulp and paper industry, while the forests of the north are a rich fur preserve.

The lands along the St. Lawrence possess excellent soil and general farming is carried on extensively. In the Niagara Belt, fruit farming has been scientifically developed into a highly specialized industry.

Manitoba.—Manitoba, covering 246,512 sq. miles, is the most central of the provinces. With the Provinces of Saskatchewan and Alberta, it constitutes the Prairie Belt or Interior Plains section of Canada—world-renowned for the quality of its wheat.

Manitoba is a land of wide diversity, combining 400 miles of sea-coast on a rocky belt along its northeastern boundary, bordering Hudson Bay, great areas of northern mixed forests, large lakes and rivers covering an area of 26,789 sq. miles, a belt of treeless prairie extending to the southeastern corner of the Province, and patches of open prairie overlain by very fertile soil of great depth. The surface of the Province as a whole is comparatively level, the average elevation being between 500 and 1,000 feet. The greatest height of 2,727 feet is Duck Mountain northwest of Lake Dauphin.

About three-fifths of the Province, east and north of Lake Winnipeg, is underlain with Precambrian rock in which the presence of rich deposits of base metals has been confirmed. The Province, although regarded basically as agricultural, possesses a wealth of mineral, forest and water-power resources which have brought about an expanding industrial development.

Saskatchewan.—Saskatchewan, 251,700 sq. miles in area, lies in the centre of the Prairie Belt between Manitoba and Alberta and extends, as do those provinces, from the International Boundary on the south to the 60th parallel of latitude on the north.

The Canadian Shield extends over the northern third of the Province; this portion is abundantly watered by lakes and rivers and is generally of low relief. This area is also rich in timber resources and has given evidence of potential richness of mineral wealth. The southerly two-thirds of the Province is, generally, fertile prairie with soil of great depth. In normal years there is sufficient moisture for rapid growth and the abundant sunshine during the long summer season in this northern latitude quickly ripens the crops.

Alberta.—This Province covers 255,285 sq. miles and lies between Saskatchewan and the Rocky Mountains. The southern part of the Province is in the dry, treeless prairie belt, changing to the north into a zone of poplar interspersed with open prairie and giving way to mixed forests. The Canadian Shield extends only into the northeast corner of Alberta so that, excepting the fringe of mountainous country on its western border, practically the whole of the Province is overlain by arable soil of great depth. Alberta has two marked physical features: (1) the great valley of the Peace River where settlement has extended farther north than in any other part of Canada; and (2) the grazing lands in the foothills district which, rising sharply on the west, commence the ascent that continues to the very peaks of the Rocky Mountains. The southern half of the Province, rising towards the west, lies at a general elevation of from 2,000 to 4,000 feet but, in the northern half, the slope descends until elevations of well under 1,000 feet are reached at Lake Athabaska in the northeast corner.

Alberta has the most extensive coal and oil resources of any of the provinces and is the leading producer of petroleum and natural gas. These resources provide the basis of Alberta's industrial development. Lumbering is important in the more mountainous western parts and in the north, and ranching is carried on in the less populous sections. In some southern prairie areas the quantity and distribution of the natural precipitation make permanent agriculture precarious and a number of large irrigation projects have been developed, taking their water supply from rivers rising in the mountains that form the western boundary of the Province. The climate of Alberta is a particularly pleasant one, cooler in summer than the more eastern parts of the country and tempered in winter by the chinook winds.

British Columbia.—British Columbia, 366,255 sq. miles in area, is the third largest and the most westerly province of Canada. It includes many islands of the Pacific, notably Vancouver Island and the Queen Charlotte Islands, the area of the former being about 12,408 sq. miles.

The predominant feature of the Province is the parallel ranges of mountains that cover all except the northeast corner and produce a conformation characterized by high mountain ranges interspaced with valleys, many of which are extremely fertile with climatic conditions well adapted to mixed agriculture or fruit growing. Generally, the agricultural areas of these valleys are relatively small and broken, but there are two large areas in the Peace River Block and the Stuart Lake District that are rich and have great agricultural possibilities. The shore line of the Pacific is deeply indented with many inlets which are ideal for harbourage.

The wealth of the forest resources supports the lumbering and pulp and paper industries and places British Columbia first among the provinces in the production of lumber and timber. The Province excels in fishery products, chiefly on account of the famous Pacific salmon. The mineral resources are remarkable for their variety and wealth. Production of gold, copper, silver, lead and zinc has played an important role in the economic life of the Province since its early days, while valuable coal deposits on Vancouver Island and at Crownsnest and Fernie in the interior have been worked for many years. In water-power resources, British Columbia ranks second in Canada.

Yukon and the Northwest Territories.—These vast northern territories extend over an area of 1,511,979 sq. miles, about 39 p.c. of the surface of Canada, from the 60th parallel of latitude to its northernmost limits.

The Territories are areas of contrast and extremes in physical characteristics, flora and fauna, and climate. The physical characteristics vary from the treeless plains of the far north, the rolling hills of the Canadian Shield in the east, the forested valley of the Mackenzie River, to some of the highest peaks of the Cordilleran Range in the west; from the small streams and lakes to the longest rivers in Canada, the Mackenzie and the Yukon, both of which are approximately 2,000 miles long, and Great Slave and Great Bear Lakes, each of which is over 11,000 sq. miles in area.

The mountains are rich in minerals and many valuable mining properties have been developed for gold, silver, oil and natural gas. The shores of Great Bear Lake have important deposits of high-grade pitchblende ores.

Early maturing varieties of spring wheat are grown on the agricultural land of the Territories lying almost entirely in the extension into the Mackenzie Valley of the central plains of the Prairie Provinces. In the northern regions the flora and fauna have their own peculiar patterns. Immense areas of lichens, which at first sight appear to be stretches of broken greyish rock, are the pastures upon which muskoxen feed. Caribou and muskoxen also feed on crowberries, ground-willow, sedges and mosses in the summer and on the living roots of these plants in winter.

The winters along the Mackenzie River are bitterly cold, averaging 16° to 25° below zero, but in Yukon they are surprisingly mild, being modified by Pacific waters, and vary from 2° below to 21° below zero.

Hunting of seals, walrus and whales and fishing and trapping form the principal basis of existence for the native Eskimos, providing food and hides for the manufacture of clothing, sleeping bags, etc. The introduction of reindeer by the Federal Government in the Mackenzie District of the Northwest Territories has provided an important industry to serve the people's needs.

PART II.—LAND RESOURCES AND PUBLIC LANDS

Section 1.—Land Resources

Table 1 classifies the land resources as agricultural, forested and unproductive. Duplication is unavoidable between the totals of present and potential agricultural land and the totals of forested land to the extent of agricultural lands under forest. The figures of agricultural lands are based on the 1951 Census; those on forested land are obtained from the Department of Resources and Development while those for total land area of Canada and the provinces are supplied by the Surveyor General.

1.—Land Area, classified as Agricultural, Forested or Unproductive, (circa) 1951

Description	New- found- land	Prince Edward Island	Nova Scotia	New Brun- swick	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	Yukon and N.W.T.	Canada
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
Agricultural Land (Present and Potential)—												
Occupied—												
Improved—Crops and summerfallow.....	32	669	750	1,123	9,121	14,030	15,397	57,126	32,223	1,161	1	131,632
Pasture.....	9	309	242	381	4,196	5,055	914	2,252	1,739	536	—	15,633
Other.....	5	31	42	68	478	748	504	1,258	837	97	—	4,068
Unimproved—Forest (woodland).....	58	541	2,884	3,194	9,179	6,020	4,602	4,477	1,807	1,807	—	35,594
Other.....	29	161	1,041	656	3,255	6,772	8,057	31,111	30,192	3,747	1	85,021
Totals, Occupied.....	133	1,711	4,959	5,422	26,229	32,025	27,704	96,349	69,468	7,348	1	271,948
Unoccupied—												
Grass, brush, etc.....	2	64	3,677	1,056	1,500	5,899	8,541	9,242	26,872	2,948	—	69,864
Forested.....	2	80	3,000	9,500	36,893	61,990	10,000	23,000	45,000	11,450	—	210,913
Totals, Unoccupied.....	2	144	6,677	10,556	38,393	67,889	24,541	32,242	71,872	14,398	—	280,777
Non-forested.....	75	1,234	5,752	3,284	18,550	32,504	33,413	100,989	91,863	8,489	—	306,218
Forested.....	58	621	5,884	12,664	46,072	68,010	18,832	27,002	49,477	13,257	—	246,507
Totals, Agricultural Land ²	133	1,855	11,636	15,978	64,622	100,514	52,245	128,591	141,340	21,746	—	552,725
Forested Land—												
Softwood—												
Merchantable.....	7,161	90	4,600	5,000	105,745	36,900	1,835	1,500	7,700	35,400	4,200	210,131
Young growth.....	4,059	215	3,150	3,000	29,588	29,300	9,115	6,450	24,070	50,492	—	182,269
Mixed wood—												
Merchantable.....	150	825	7,000	23,041	24,100	2,000	1,100	2,000	9,360	—	—	68,576
Young growth.....	130	480	5,000	22,549	67,400	5,120	9,400	31,430	—	—	—	146,509
Hardwood—												
Merchantable.....	15	1,620	1,000	3,199	5,900	1,680	2,800	3,620	—	—	—	2,800
Young growth.....	—	10	850	1,000	6,543	10,200	11,650	24,000	16,880	—	—	22,634
Totals, Forested Land.....	11,220	610	11,555	22,000	190,665	173,800	30,500	46,150	63,060	85,892	47,000	712,452
Total Productive Forested Land.....	13,699	—	—	190	165,394	63,400	62,500	40,000	37,560	128,564	76,000	537,307
Unproductive Forested Land.....												
Tenure—Privately owned.....	4,082	608	8,465	11,140	26,905	14,240	6,963	7,347	9,038	7,920	—	96,708
Crown land.....	20,837	2	3,090	11,050	329,154	222,960	86,037	78,803	121,582	206,536	—	1,203,051
Totals, Forested Land.....	24,919	610	11,555	22,190	356,059	237,200	93,000	86,150	130,620	214,456	123,000	1,299,759
Net Productive Land³.....	24,994	1,844	17,307	25,474	374,609	269,704	126,413	187,139	222,483	222,945	133,065	1,605,977
Waste and Other Land⁴.....	123,000	340	3,456	1,999	149,251	93,578	93,310	50,536	26,317	136,334	1,325,719	2,004,120
Totals, Land Area.....	147,994	2,194	20,743	27,473	623,860	363,582	219,723	237,975	248,800	359,279	1,458,784	3,610,097

¹ Less than one square mile.² For purposes of this table, the unoccupied agricultural land of Newfoundland (figures for which are unavailable) is presumed to be nil.³ Agricultural land of all classes and land that has agricultural possibilities in any sense.⁴ Includes open muskeg, rock, road allowances, urban land, etc.

NOTE.—Totals, Forested Land excludes forested land of Labrador.

Canada's extensive areas of arable and forested land, together with its vast water-power resources, are the basis of its industrial and commercial life. Agricultural land has been developed on a substantial scale and is well distributed from east to west. It is characterized by a diversity of contour, soil and climate and is thus capable of producing a great variety of crops in a volume well beyond domestic requirements. Of the total land area, 15.3 p.c. is estimated as suitable for cultivation and of this area a little less than 50 p.c. is, at present, occupied. Most of the unoccupied land considered potentially suitable for agriculture is now under forest. Altogether, about 36 p.c. of the total land area of the country is forested. This vast extent is of immense importance, not only in the production of lumber, pulpwood and fuel, but also in tempering the climate and conserving the water supply.

The above treatment of lands resources is concerned only with those summary phases of the subject that can be regarded as falling under the definition of physiography used in its wider interpretation. Detailed information regarding individual natural resources and their development will be found in later chapters, together with data concerning the efforts directed to conservation of those resources.

Section 2.—Public Lands

In Table 2, classifying the land area of Canada by tenure, items 2, 3 and 4 are obtained from Federal Government sources and items 1, 5 and 6 from Provincial Government sources.

2.—Land Area Classified by Tenure, (circa) 1952

Tenure	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
1. Alienated from the Crown or in process of alienation.....	6,680 ¹	2,173	16,937	16,713	43,507	40,920
2. Federal lands other than National Parks and Indian Reserves ²	2	—	13	38	2,967 ³	1,126
3. National Parks ⁴	—	7	391	80	4	12
4. Indian Reserves.....	—	4	30	59	281	2,435
5. Provincial lands, including leased lands and forest reserves, but not Provincial Parks.....	141,270	—	3,372	10,583	466,005	313,577
6. Provincial Parks.....	42	—	—	—	12,000	5,212
Totals, Land Area.....	147,994	2,184	20,743	27,473	523,860	363,282
	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
1. Alienated from the Crown or in process of alienation.....	44,581	104,413	78,313	19,695	66	373,998
2. Federal lands other than National Parks and Indian Reserves ²	2	51	11,671	161	1,455,084 ⁵	1,470,215
3. National Parks ⁴	1,149	1,496	20,718 ⁶	1,671	3,625 ⁷	29,149
4. Indian Reserves.....	821	1,880	2,296	1,274	9	9,089
5. Provincial lands, including leased lands and forest reserves, but not Provincial Parks.....	173,170	128,450	135,788	322,397	—	1,694,612
6. Provincial Parks.....	—	1,685 ⁸	14	14,081	—	33,034
Totals, Land Area.....	219,723	237,975	248,800	359,279	1,458,784	3,610,097

¹ Excludes the coast of Labrador.

² Does not add to total for Canada due to fractions of sq. miles.

³ Includes the Gatineau Park (50 sq. miles) and the Quebec Battlegrounds Park (0.36 sq. miles) which are under federal jurisdiction but which are not technically National Parks.

⁴ Less than 1 sq. mile.

⁵ Includes 952,849 sq. miles set aside by Order in Council as native game preserves in which only Indians and Eskimos may hunt, as game sanctuaries in which hunting and trapping is otherwise forbidden, and as reserves for reindeer grazing, but which are not regarded as National Parks.

⁶ Includes Wood Buffalo Park (13,675 sq. miles) which, although reserved by the Federal Government, is not administered as a National Park.

⁷ That portion of Wood Buffalo Park in N.W.T.

⁸ Includes 1,392 sq. miles of unsurveyed lands—Provincial Park areas.

Subsection 1.—Federal Public Lands

Public lands under the administration of the Federal Government comprise lands in the Northwest Territories, including the Arctic Archipelago and the islands in Hudson Strait, Hudson Bay and James Bay, lands in Yukon Territory, Ordnance and Admiralty Lands, National Parks and National Historic Sites, Forest Experiment Stations, Experimental Farms, Indian Reserves and, in general, all public lands held by the several Departments of the Federal Government for various purposes connected with federal administration. The Dominion Lands Act, (R.S.C., 1927, c. 113) and the Ordnance and Admiralty Lands Act (R.S.C., 1927, c. 58) were repealed in 1950, while the Territorial Lands Act (14 Geo. VI, c. 22) and the Public Lands Grants Act (14 Geo. VI, c. 19) were enacted to replace them and became effective June 1, 1950.

The largest land areas under federal administration are the Northwest Territories and Yukon Territory amounting to about 1,458,784 sq. miles or 40 p.c. of the land surface of Canada. This part of the national domain, which is all north of the 60th parallel of latitude, is under the administration of the Northern Administration and Lands Branch of the Department of Resources and Development.

Recent Developments in the Northwest Territories.—The value of mineral production in the Northwest Territories in 1950 amounted to \$8,050,899 made up as follows: gold \$7,635,227, silver \$50,198, crude petroleum \$352,656, and natural gas \$12,818. During the year ended Mar. 31, 1951, 650 miner's licences and renewals and 1,023 quartz grants were issued, and assignments of mineral claims numbered 808. Record was made of 124 leases, comprising 6,617 acres, issued under the Quartz Mining Regulations. The mining inspection service was maintained under the Mines Safety Ordinance of the Northwest Territories.

X-ray diamond drilling was carried on in the Quytá-Giaque Lake area to evaluate the ore deposits. Prospecting and exploration, including 14,741 feet of diamond drilling, was conducted in the McKay-Courageous Lake region. The 490-foot shaft of an old property in the Indin Lake area was drained and 1,248 feet of underground development completed. Production of pitchblende concentrates continued in the Great Bear Lake area. Prospecting for uranium was carried on in the Hottah Lake and East Slave Lake areas and a 5,000-foot diamond-drilling program was begun at Stark Lake in the East Slave Lake area. Several claims were staked on the uranium-bearing ore located at Hottah Lake.

In 1951, a mine rescue station was opened at Yellowknife. The building includes a lecture room, storage for first-aid equipment, living quarters for the mine rescue superintendent and a double garage. The Department of Resources and Development provided \$26,500 for construction and \$8,500 for equipment and the mines assumed the balance of the construction costs and also maintenance expenses including the superintendent's salary.

During the 1951 season the Geological Survey of Canada, Department of Mines and Technical Surveys, had eight field parties carrying on mapping in the Carp Lake, Christie Bay and Fort Reliance areas, in southern Baffin Island and on Cornwallis Island.

During the year ended Mar. 31, 1951, 816 leases, licences, permissions to occupy, and agreements were in force, and 138 timber permits and 11 commercial timber berth permits were issued. The most important land transaction in 1951 was the transfer of 1,016 surveyed lots at Yellowknife Settlement to the Local Administrative District of Yellowknife, effective Jan. 6.

The Mackenzie District and Western Arctic were served by water transport during the navigation season and the all-weather Mackenzie Highway from Grimshaw, Alta., to Hay River was used extensively. Most settlements were served by aircraft carrying mail, passengers and freight, and radio communication through Government and private stations was maintained between settlements and outside points. The Government vessel, *C. D. Howe*, carried out its annual Eastern Arctic Patrol, transporting replacement personnel, mail and supplies as well as Government officers engaged in the study of Eskimo economy, food and health conditions, trade, family allowances, relief, old age allowances, education and vital statistics. The Department of Resources and Development provided the Canadian Handicrafts Guild with a grant of \$5,000 to organize handicraft work among the Eskimos. Carvings in stone, ivory and wood, and articles made of skins and furs are being successfully marketed.

Progress continued in forest conservation and wildlife protection. Regular patrols were conducted and modern fire-fighting equipment was provided from headquarters at Fort Smith. The program of aerial photography was continued by the Royal Canadian Air Force.

Commercial fishing in Great Slave Lake produced a catch of 6,813,706 lb. during the summer and winter seasons of 1950-51 and federal experimental sub-stations carried on field work in agriculture in the Mackenzie District. During the year ended June 30, 1951, fur production amounted to 643,579 pelts valued at \$2,038,339; 79 p.c. of the pelts taken were muskrat. Reindeer herds continued to be maintained in the Mackenzie Delta.

Recent Developments in Yukon Territory.—Yukon gold production in 1950 amounted to 93,339 fine oz. valued at \$3,551,549, an increase of 11,369 fine oz. over 1949. Silver production amounted to 3,202,779 fine oz. valued at \$2,588,486, lead 12,885,518 lb. valued at \$1,861,957, zinc 5,507,173 lb. valued at \$861,873, and cadmium 56,410 lb. valued at \$130,871.

In 1951, five field parties under the Geological Survey of Canada, Department of Mines and Technical Surveys, continued their investigations in connection with the production of a series of standard geological maps, reports on the main geological features, and detailed studies of certain areas. A mining inspection service was maintained under the Yukon Mining Safety Ordinance.

Leases, licences, permissions to occupy and agreements in effect in Yukon on Mar. 31, 1951, numbered 117, and during the fiscal year ended Mar. 31, 1951, 237 timber permits and 35 commercial timber berth permits were issued.

A railway connects Whitehorse with Skagway, Alaska, on the Pacific coast, and steamers ply the Yukon River and its tributaries. Aircraft service connects Yukon settlements with Vancouver and Edmonton, and bus services are provided on the Alaska Highway. A 246-mile all-weather gravel road was completed by the Federal Government in 1950 to connect the silver-lead mining area of Mayo with the Alaska Highway and railhead at Whitehorse. A similar type of road 58 miles in length was completed in 1950 as a joint project of the Federal and British Columbia Governments to give the gold mining settlement of Atlin, B.C., access to the Alaska Highway at Mile 867, Jake's Corner. These roads, with the exception of that portion of the Atlin Road lying within the Province of British Columbia, are maintained by the Territorial Government with federal financial assistance. Accommodation and roadside facilities are provided by private enterprise.



CANADIAN ARCTIC REGIONS

Scale in Miles

0 100 200 300 400 500



The program of aerial photography was continued on an enlarged scale by the Royal Canadian Air Force. The experimental substation maintained by the Department of Agriculture 100 miles northwest of Whitehorse on the Alaska Highway continued operations. Experiments with cereals and forage crops have been encouraging while poultry and cattle introduced on the substation in recent years have proved adaptable. During the year ended June 30, 1951, the fur take included 228,616 pelts valued at \$361,969.

Subsection 2.—Provincial Public Lands

Public lands of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia (except the Railway Belt and Peace River Block) have been administered since Confederation by the Provincial Governments. In 1930, the Federal Government transferred the unalienated portions of the natural resources of Manitoba, Saskatchewan, Alberta and of sections of British Columbia to their respective governments, and all lands in the Province of Newfoundland, except 6,680 sq. miles of alienated land and 2 sq. miles of Federal land, became provincial public lands under the Terms of Union on Mar. 31, 1949.

All land in the Province of Prince Edward Island, except 11 sq. miles under Federal administration, has been alienated.

Information regarding provincial public lands may be obtained from the respective provinces. (See the Directory of Sources of Official Information, Chapter XXVIII, under "Lands".)

Certain areas in most of the provinces have been set aside for parks and reserves; these are dealt with below.

Subsection 3.—National and Provincial Parks

The future of Canada in the field of outdoor recreation is being wisely provided for by the establishment of National and Provincial Parks. Many of these Parks are easily accessible by highway, rail or air and offer every type of accommodation from camping facilities to palatial hotels and cosy cabins. A wide variety of summer and winter recreational attractions are available in mountain, lakeland, woodland and seaside areas of exceptional scenic beauty.

The areas of the Parks are given in Table 3; location, year of establishment and main characteristics are given in Tables 4 and 5.

3.—Land Areas of National and Provincial Parks, by Provinces and Territories

Province or Territory	National sq. miles	Provincial sq. miles	Total sq. miles
Newfoundland.....	—	42-00	42-00
Prince Edward Island.....	7-00	—	7-00
Nova Scotia.....	390-61	—	390-61
New Brunswick.....	79-63	—	79-63
Quebec.....	0-33 ¹	12,000-00	12,000-33 ¹
Ontario.....	11-74	5,212-17	5,223-91
Manitoba.....	1,149-00	—	1,149-00
Saskatchewan.....	1,496-00	1,685-13 ²	3,181-13
Alberta.....	20,718-00	14-00	20,732-00
British Columbia.....	1,671-00	14,081-00	15,752-00
Yukon.....	—	—	—
Northwest Territories.....	3,625-00	—	3,625-00
Canada.....	29,148-31¹	33,034-30	62,182-61¹

¹ Not including area of Gatineau Park, 50 sq. miles in extent (see p. 33).
Lac La Ronge unsurveyed lands, 1,392 sq. miles in extent.

² Includes Nipawin and

National Parks.—From 1885, when the first National Park was established around the mineral hot springs at Banff, Alta., to 1951, 28 areas covering more than 29,000 sq. miles have been set aside as National Parks.

These Parks are maintained by the Federal Government for the protection of their flora, fauna and natural phenomena, for the preservation of their scenic beauties and interest and in some cases the marking of their historical significance in the building of the nation. They are supervised by the National Parks Branch, Department of Resources and Development, and are developed and maintained in such a manner as to provide perpetual inspiration, education and healthful recreation for present and future generations.

The National Parks are Canada's greatest single tourist attraction. Accommodation in privately owned hotels, bungalow cabins, chalets, lodges and cottages is available and modern cabins have been built in several of the Parks by the National Parks Administration to afford low-rental accommodation to Park visitors. Recreational facilities include heated, outdoor swimming pools with dressing-room buildings; equipped camp-grounds, some with trailer-park facilities; golf courses with superb scenic settings; tennis courts; bowling greens; well-equipped children's playgrounds; athletic fields; horseshoe pitches; outdoor checker-boards; and, in some of the Parks, amphitheatres where plays, concerts and picture shows are held in the open. For winter sports there are down-hill and slalom ski courses, ski jumps, ski tows and a chairlift.

A park warden service protects the forests and wildlife and maintains constant vigilance for the safety and comfort of visitors. Stocking and transfer of game fish in order to improve angling opportunities in Park waters are carried out extensively and successfully; fish hatcheries are operated in three of the mountain National Parks. Two of the Parks are largely big-game preserves where herds of buffalo and other animals find sanctuary.

In addition to the scenic, recreational and wild animal parks, Canada has eleven national historic parks. The National Parks and Historic Sites Service of the Department of Resources and Development is also responsible for the marking, preservation and restoration of places of great historic interest in Canada. More than 400 such sites have been marked on the recommendation of the Historic Sites and Monuments Board of Canada. Most important recent additions to the list of historic places transferred to National Parks administration are Lower Fort Garry in Manitoba, Fort Battleford in Saskatchewan, and the Citadel at Halifax, Nova Scotia.

4.—Location, Year Established, Area and Characteristics of National Parks

Park	Location	Year Estab- lished	Area sq. miles	Characteristics
Scenic and Recreational Parks				
Banff.....	Western Alberta, on east slope of Rockies.	1885	2,564.0	Magnificent scenic playground containing noted resorts, Banff and Lake Louise. Mineral hot springs; summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds.

4.—Location, Year Established, Area and Characteristics of National Parks—continued

Park	Location	Year Estab- lished	Area sq. miles	Characteristics
Scenic and Recrea- tional Parks—con.				
Yoho.....	Eastern British Col- umbia, on west slope of Rockies.	1886	507.0	Lofty peaks, magnificent waterfalls, colour- ful lakes. Yoho and Kicking Horse Valleys. Accessible by rail and highway. Hotel and bungalow cabin accommoda- tion. Equipped camp-grounds.
Glacier.....	Southeastern British Columbia, on sum- mit of the Selkirk Range.	1886	521.0	Superb alpine region, towering peaks, glaciers and forests. Accessible by rail only. Climbing, skiing, camping.
Waterton Lakes.....	Southern Alberta, adjoining Glacier Park in Montana, U.S.A.	1895	204.0	Canadian section, Waterton-Glacier Inter- national Peace Park. Mountain play- ground with spectacular peaks and charm- ing lakes. Accessible by highway. Hotel and bungalow cabin accommoda- tion. Equipped camp-grounds.
Jasper.....	Western Alberta, on east slope of Rockies.	1907	4,200.0	Mountain playground and noted wildlife sanctuary. Majestic peaks, ice-fields, beautiful lakes and famous resort, Jasper. Mineral hot springs, summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp- grounds.
Mount Revelstoke...	Southeastern British Columbia, on west slope of Selkirks.	1914	100.0	Rolling mountain-top plateau. Colourful alpine meadows. Accessible by rail and highway. Summer accommodation in Park; all-year accommodation in town of Revelstoke. Championship ski runs and ski jump. Equipped camp-grounds.
St. Lawrence Islands.	In St. Lawrence River between Morrisburg and Kingston, Ont.	1914	189.4 (acres)	Mainland area and 13 islands among Thous- and Islands. Recreational and camping area. Accessible by highway: by boat from nearby mainland points.
Point Pelee.....	Southern Ontario, on Lake Erie.	1918	6.0	Recreational area. Remarkable beaches, southern flora. Resting place for mi- gratory birds. Accessible by highway. Hotel and bungalow cabin accommoda- tion. Equipped camp-grounds.
Kootenay.....	Southeastern British Columbia, on west slope of Rockies.	1920	543.0	Encloses Vermilion-Sinclair section of Banff-Windermere Highway. Broad valleys, deep canyons, mineral hot springs. Hotel and bungalow cabin accommodation. Equipped camp- grounds.
Prince Albert.....	Central Saskat- chewan, north of Prince Albert.	1927	1,496.0	Forested region dotted with lakes and interlaced with streams. Summer play- ground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp- grounds.
Riding Mountain....	Southwestern Mani- toba, west of Lake Winnipeg.	1929	1,148.0	Playground and wildlife sanctuary on summit of escarpment. Fine lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equip- ped camp-grounds.
Georgian Bay Islands	In Georgian Bay, north of Midland, Ont.	1929	5.4	Recreational and camping area. Unique pillars on Flowerpot Island. Accessible by boat from nearby mainland points. Equipped camp-grounds and annual youth camps on Beausoleil Island.

4.—Location, Year Established, Area and Characteristics of National Parks—concluded

Park	Location	Year Estab- lished	Area	Characteristics
			sq. miles	
Scenic and Recreational Parks—concl.				
Cape Breton High-lands.	Northern part of Cape Breton Island, N.S.	1936	390.0	Rugged Atlantic coast line with mountain background. Fine seascapes. Recreational opportunities. Hotel and bungalow cabin accommodation. Equipped camp-grounds.
Prince Edward Island.	North shore of Prince Edward Island.	1937	7.0	Strip 25 miles long on shores of the Gulf of St. Lawrence. Recreational area, fine bathing beaches. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds.
Fundy.....	On Bay of Fundy between Moncton and Saint John in New Brunswick.	1948	80.0	Delightful recreational area. Forested region, wildlife sanctuary, rugged terrain. Bungalow cabin accommodation. Equipped camp-grounds.
Wild Animal Parks				
Elk Island.....	Central Alberta, near Edmonton.	1913	75.0	Fenced preserve containing large herd of buffalo; also deer, elk and moose. Popular recreational area. Accessible by highway. Bungalow cabin accommodation and equipped camp-grounds.
Wood Buffalo ¹	Partly in Alberta and partly in Northwest Territories, between Athabaska and Slave Rivers.	1922	17,300.0	Immense region of forests and open plains. Home of largest remaining herd of bison on the continent. Other wildlife abundant.
Historic Parks				
			acres	
Fort Anne.....	Nova Scotia, at Annapolis Royal.	1917	31.0	Site of early Acadian settlement. Museum and well-preserved earthworks.
Fort Beauséjour.....	New Brunswick, near Sackville.	1926	81.0	Site of French fort erected in middle of 18th century. Museum.
Fortress of Louisbourg.	Cape Breton Island, N.S., 25 miles from Sydney.	1941	340.0	Ruins of walled city erected by the French, 1720-40. Interesting excavations. Museum.
Port Royal.....	Lower Granville, N.S., 8 miles from Annapolis Royal.	1941	17.0	Restoration of "Habitation" or first fort built in 1605 by Champlain, DeMonts and Poutrincourt.
Fort Chambly.....	Chambly, Que.....	1941	2.5	French fort on Richelieu River, first built in 1665. Museum.
Fort Lennox.....	Ile-aux-Noix, Que., near St. Johns.	1941	210.0	Site of early French fort built in 1759.
Fort Wellington.....	Prescott, Ont.....	1941	8.5	Defence post built 1812-13. Museum.
Fort Malden.....	Amherstburg, Ont..	1941	5.0	Site of defence post built 1797-99. Museums.
Fort Prince of Wales.	Northern Manitoba, near Churchill.	1941	50.0	Ruins of fort built 1733-71 to secure control of Hudson Bay for England.
Lower Fort Garry...	Manitoba, 20 miles north of Winnipeg.	1950	13.0	Stone-walled fort built by the Hudson's Bay Company between 1831 and 1839.
Fort Battleford.....	Saskatchewan, 4 miles south of North Battleford.	1951	36.7	North West Mounted Police post built in 1876.

¹ Administered by the Northern Administration and Lands Branch, Department of Resources and Development.

Provincial Parks.—In addition to the National Parks already described, most of the provinces have established Provincial Parks. These Parks, as in the case of the National Parks, are areas of great scenic or other interest maintained for the benefit of present and future generations. The Provincial Parks are administered by the Provincial Governments concerned and in most cases they have not yet reached the degree of development which marks the National Parks. In Prince Edward Island, Nova Scotia, New Brunswick and Manitoba there are no Provincial Parks.

5.—Location, Year Established, Area and Characteristics of Provincial Parks

Province and Park	Location	Year Established	Area	Characteristics
			acres	
Newfoundland— Serpentine.....	South of Humber Arm, west coast.	1939	26,880	Undeveloped.
Quebec— Laurentides.....	25 miles north of Quebec city, on both sides of Quebec-Chicoutimi highway.	1895	2,373,120	Altitude 3,000 ft., numerous lakes, tumultuous rivers. Speckled trout, moose, deer, black bears, wolves, etc. No hunting. Three hotels and 50 fishing camps.
Trembling Mountain.	80 miles north of Montreal, Mont Tremblant Village close to the southern section of Park.	1895	782,720	Famous resort area, summer and winter. Ski school and lifts, 40 miles of ski trails, 9 ski slopes. Lac Tremblant 750 ft. above sea-level. Highest peak Mont Tremblant, 3,100 ft.
Gaspesian.....	Gaspé Peninsula.....	1937	328,960	Established to preserve caribou and wildlife on south side of St. Lawrence. Accessible from Ste. Anne des Monts, Gaspé. Speckled trout, 5 fishing camps. One hotel at Ste. Anne des Monts. Includes the highest peaks of the Shickshock Mountains. Highest peak Mount Jacques-Cartier, 4,200 ft.
Mount Orford.....	On Orford Mountain, 15 miles west of Sherbrooke.	1938	9,970	Altitude 2,860 ft. Skiing and golfing.
La Vérendrye.....	In western part of Province 140 miles northwest of Montreal on both sides of route Montreal - Abitibi.	1939	2,043,520	Altitude 1,200 ft. Numerous lakes and rivers. Trout, pike, pickerel and bass. Tourist accommodation and stopping place. Twelve fishing camps maintained by Dept. of Fish and Game.
Chibougamau Fish and Game Reserve.	30 miles west of Lake St. John. Strip 80 miles long on both sides of Lake Chibougamau highway.	1946	2,176,000	Altitude 1,300 ft. Numerous lakes and rivers. Trout, pike and pickerel. Five fishing camps and one camping ground maintained by Dept. of Fish and Game.
Shick Shocks Fish and Game Reserve.	Adjacent to and completing Gaspesian Park.	1949	200,960	See "Gaspesian" above.
Kipawa Lake Fish and Game Reserve.	Approximately 8 miles northeast of Timiskaming.	1950	640,000	Altitude 1,000 ft. Numerous lakes and rivers. Trout, pike and pickerel.
Ontario— Algonquin.....	In southeastern Ontario in the District of Nipissing and the County of Haliburton, 141 miles north of Toronto, 105 miles west of Ottawa.	1893	1,754,240	Wilderness area, wildlife preserve. Hotels, summer cottage sites, camping facilities, canoe trips, fishing, bathing.

5.—Location, Year Established, Area and Characteristics of Provincial Parks—con.

Province and Park	Location	Year Established	Area	Characteristics
			acres	
Ontario —concl. Rondeau.....	In southwestern Ontario in the County of Kent, 20 miles southeast of Chatham, 70 miles east of Windsor.	1894	5,120	Partly cultivated, fine timber stands. Enclosed and wild animals. Fishing, duck - hunting, camping facilities, summer cottage sites, restaurant, store, dance pavilion, other recreational facilities.
Quetico.....	In northwestern Ontario in the Rainy River district. Southern boundary adjoins the International Boundary midway between Port Arthur and Fort Frances.	1913	1,190,400	Wilderness area, wildlife preserve. Camping facilities, canoe trips, fishing.
Ipperwash Beach.	In southwestern Ontario in the County of Lambton, on Lake Huron, 100 miles north of Windsor, 50 miles north of Chatham.	1937	109	Sand beach, woodland area. Fishing, camping facilities, bathing.
Lake Superior....	In northeastern Ontario in the District of Algoma, on Lake Superior, about 70 miles north of Sault Ste. Marie.	1944	345,600	Wilderness area, wildlife preserve. Fishing.
Sibley.....	In northwestern Ontario in the Thunder Bay district. On north shore of Lake Superior, 40 miles northeast of Port Arthur and Fort William.	1944	40,320	Wilderness area, wildlife preserve.
Saskatchewan — Cypress Hills....	South of Maple Creek near International Boundary.	1932	10,880	Forest area. Bungalow, lodge and cabin accommodation, auto camp.
Duck Mountain...	15 miles northeast of Kam-sack.	1932	51,840	Forest and lake area. Beaches. Fish and wild life.
Good Spirit Lake.	20 miles west of Canora...	1932	3,827	Camp and picnic grounds. Fishing, swimming.
Greenwater Lake.	North of Kelvington.....	1932	22,240	Forest and lake area. Swimming, fishing.
Lake Katepwa....	In Qu'Appelle Valley, 14 miles north of Trans-Canada Highway from Indian Head.	1932	17	Lake area, camping, fishing, swimming, playground activities.
Little Manito....	On Manitou Lake.....	1932	238	Medicinal waters. Chateau, cabin and tourist accommodation.
Moose Mountain...	15 miles north of Carlyle.	1932	98,560	Lake area. Poplar and white birch stands. Fishing.
Nipawin.....	35 miles northwest of Nipawin.	1934	161,280	Lodgepole pine stands. Camping, trout fishing.
Lac La Ronge....	190 miles north of Prince Albert.	1939	729,600	Lake area. Spruce and poplar stands. Tourist accommodation, trout fishing.
Alberta — ¹ Ghost River.....	On Ghost and Bow Rivers west of Calgary.	1930	536	Artificial lake. Cottages and picnic ground.
Saskatoon Moun-tain Reserve.	In Grande Prairie district.	1930	3,000	Mountain lookout.

¹ Excludes 16 small parks which are mainly of local interest (see pp. 26-27 of the 1950 Year Book)

5.—Location, Year Established, Area and Characteristics of Provincial Parks—con.

Province and Park	Location	Year Estab- lished	Area	Characteristics
			acres	
Alberta —concl.				
Writing-on-Stone Reserve.	On Milk River east and north of Coutts.	1930	796	Natural obelisks with undeciphered hieroglyphics. Summer village.
Saskatoon Island..	West of Grande Prairie....	1932	250	Picnic ground.
Bad Lands Reserve.	North of Drumheller.....	1934	1,800	Fossilized remains of prehistoric animals.
Elkwater Lake....	On south shore of lake at foot of Cypress Hills.	1947	378	Cottages, recreation and camp grounds. Limited accommodation for transients.
Crimson Lake....	9 miles northwest of Rocky Mountain House.	1948	900	Cottages. Swimming, fishing, picnic and sports ground.
Red Lodge.....	9 miles west of Bowden on Little Red Deer River.	1948	45	Swimming. Picnic and sports ground.
Kinbrook Island..	Island in Lake Newell, 9 miles south of Brooks.	1949	90	Island connected by causeway to lake shore. Boating and swimming; recreation and picnic grounds.
British Columbia — ¹				
Strathcona.....	Campbell River, Vancouver Island.	1911	529,920	Oldest B.C. Provincial Park, situated in the rugged centre of Vancouver Island. Contains many glaciers, alpine meadows and lakes. Della Falls, one of the world's highest falls. Undeveloped and mostly inaccessible.
Mt. Robson.....	Mt. Robson, adjacent to Jasper Park.	1913	513,920	Rocky Mountain park featuring Mt. Robson, highest peak in the Canadian Rockies, Berg Lake and impressive glaciers. Access to Berg Lake Camp by horse trail.
John Dean.....	Sidney, near Victoria, Vancouver Island.	1921	98	Mountain viewpoint overlooking the Saanich Peninsula and Gulf Islands. Features primeval forests and wild flowers. Picnic grounds and hiking trails. Accessible by road.
Kokanee Glacier..	Near Nelson.....	1922	64,000	High mountain park featuring Kokanee Glacier and several scenic lakes. Fishing, mountaineering and skiing. Poor road and trail access.
Mt. Assiniboine...	South of Banff.....	1922	12,800	Outstanding area of Rocky Mountain scenery, features Mt. Assiniboine and small lakes. Hiking, riding, fishing, skiing. Access by horse trail.
Nakusp Hot Spring.	Nakusp, Arrow Lake, southeast B.C.	1925	127	Hot springs. Access by eight miles of trail.
Salt Lake.....	Prince Rupert.....	1925	87	Community swimming and picnic area. Access by ferry from Prince Rupert.
Garibaldi.....	Haney - Squamish, lower mainland, north of Vancouver.	1927	612,615	Outstanding scenic park with mountain lakes, peaks and glaciers, flower meadows and interesting geological features. Potential winter sports area. Access by trail from several points on the Pacific Great Eastern Railway.

¹ Excludes 31 parks which are mainly of local interest (see pp. 27-30 of the 1950 Year Book).

5.—Location, Year Established, Area and Characteristics of Provincial Parks—con.

Province and Park	Location	Year Estab- lished	Area	Characteristics
			acres	
British Columbia—con.				
Mt. Seymour.....	North Vancouver main- land.	1936	9,156	Mountain, winter sport park with sum- mer hiking, swimming and berry picking. Highway under construc- tion.
Crescent Beach...	Crescent Beach, lower mainland near Interna- tional Boundary.	1938	237	Ocean beach. Accessible by road.
Tweedsmuir.....	Bella Coola, Burns Lake..	1938	3,456,000	One of the larger wilderness areas in North America. Scenic boat tours and trail rides. Fishing and hunting.
Peace Arch.....	White Rock, B.C., and Blaine, Washington, In- ternational Boundary.	1939	16	Landscaped international park featur- ing Peace Arch. Picnic grounds. King George VI Highway.
Wells Gray.....	North of Kamloops.....	1939	1,165,005	Undeveloped lake and mountain park. Fishing and hunting. Accessible by poor road and trail.
Chasm.....	Clinton, central B.C.....	1940	315	Outstanding geological feature — a great chasm in the Interior Plateau adjacent to the Caribou Highway.
Elk Falls.....	Campbell River, east coast, Vancouver Island.	1940	2,558	Series of cascades and falls on Camp- bell River. Stand of giant firs.
Englishman River Falls.	Parksville.....	1940	240	Forest area, picturesque river contain- ing falls and canyons. Picnicking, swimming, camping and hiking. Accessible by highway.
Little Qualicum Falls.	Qualicum Beach, adjacent to Parksville - Alberni Highway.	1940	207	Forest area, picturesque river contain- ing falls and canyons. Picnicking, swimming, camping and hiking. Accessible by highway.
Premier Lake.....	Cranbrook, Canal Flats, southeast B.C.	1940	165	Mostly local use. Fishing, picnicking, swimming. Poor road access.
Silver Star.....	Vernon, Okanagan, south central B.C.	1940	21,888	Interior mountain park, alpine scenery, berry picking, skiing. Accessible by poor road.
Stamp Falls.....	Alberni, Vancouver Island.	1940	424	Popular forest park with river falls, fish ladder and swimming pool. Picnicking, camping. Road access.
Hamber.....	Big Bend Highway. Park adjoins Jasper and Banff.	1941	2,431,960	Undeveloped forest and mountain area bordering easterly portion of Big Bend Highway.
Manning.....	Hope-Princeton Highway, south central B.C. near International Boundary.	1941	170,313	Mountain park featuring alpine flower meadows and scenic fishing lakes. Wildlife sanctuary. Accessible by highway.
Darke Lake.....	Summerland, south Okan- agan.	1943	5,472	Scenic group of interior mountain lakes. Fishing, hunting and boating.
McMillan.....	Cameron Lake, Vancouver Island.	1944	337	World-famous stand of virgin west- coast forest. Accessible by Alberni- Parksville Highway.
Memory Island...	Slmwnigan Lake, south Vancouver Island.	1945	2	Small undeveloped island in recrea- tional area. Swimming, fishing, adjacent to highway.
Petroglyph.....	Nanaimo, east coast, Van- couver Island.	1948	4	Site of ancient rock carvings of un- known origin. Accessible by road.

5.—Location, Year Established, Area and Characteristics of Provincial Parks—concl.

Province and Park	Location	Year Estab- lished	Area	Characteristics
			acres	
British Columbia—concl.				
Cultus Lake.....	Chilliwack, Fraser Valley, lower mainland.	1948	950	Summer park. Swimming, picnicking, fishing.
Ivy Green.....	Ladysmith, Vancouver Island.	1949	51	Community park and picnic ground.
Cameron Lake....	Cameron Lake.....	1950	733	Attractive lakeside area in an unspoiled rugged mountain valley adjacent to Parksville-Alberni Highway.
Miracle Beach....	Oyster River, north Vancouver Island.	1950	142	Ocean beach with outstanding vista over the Gulf Islands.

Subsection 4.—The National Capital Plan*

The Master Plan to guide the long-range development of Ottawa and the National Capital District, and to create a Capital in keeping with Canada's achievements and status as a nation, was completed at the end of 1948. The preliminary report of the National Capital Planning Committee and the Federal District Commission was tabled in the House of Commons on Apr. 30, 1949, and the Final Report of Jacques Greber and his Canadian associates on the Plan was forwarded to the Government by the National Capital Planning Committee and the Federal District Commission† and tabled in the House of Commons by the Prime Minister on May 22, 1951. For further details see Year Book 1950, pp. 18-20.

Considerable progress is reported on the implementation of the Master Plan, both in the detailed planning of new developments and in actual construction work. A high degree of co-operation has been achieved between the municipalities in the District and the Federal planning authorities. Particularly important in this regard was the acceptance by the Ottawa Planning Area Board (the Ontario municipal-provincial planning authority) of the proposed urban and inter-urban road system, and the initiation by Ottawa's Municipal Planning Department of a comprehensive zoning plan conforming to the recommendations of the Master Plan.

Discussions took place in 1951 with the City of Ottawa regarding the Federal District Commission's share of the costs of extending municipal water and sewage services in conformity with the Master Plan; the projects concerned were the Carlington and Alta Vista reservoirs and the west and south Nepean and south Rideau intercepter sewers which, in part, service new Federal Government building areas.

Since 1946, the Federal District Commission must approve the location and external architecture of all new Federal Government buildings, or alterations to existing buildings. This control is exercised, initially, by the Architectural Sub-Committee of the National Capital Planning Committee. During 1951 this Sub-Committee co-ordinated and assisted in the preparation of plans for the large-scale development of the Ottawa Airport jointly by the Royal Canadian Air Force, the Department of Transport and the National Aeronautical Establishment, and approved other

* Revised by the Federal District Commission, Ottawa.

† See p. 83 for history, organization and activities of the Commission.

development and construction plans in the Capital and District for the Defence Research Board, the National Research Council, the Experimental Farms Branch of the Department of Agriculture and the Department of Public Works.

The Commission, on the recommendation of the Sub-Committee, has approved submissions by various departments of the Federal Government for eight major site plans and 60 buildings. Construction is well advanced on a number of these projects, the most important including buildings for the Department of Veterans Affairs on Wellington Street, the Dominion Bureau of Statistics and Department of Public Works at Tunney's Pasture in the west end of the city, Central Mortgage and Housing Corporation on the Montreal Road, Eastview, extensions to the Bureau of Mines establishment on Booth Street and the Government Printing Bureau at Hull, Que.

The MacKenzie King Bridge in Confederation Park, built by the Federal District Commission in co-operation with the City of Ottawa, was made usable, temporarily, on Dec. 8, 1951, while approaches and final surfacing, etc., will be completed as soon as possible. This provides another greatly needed east-west route through the centre of the Capital, enabling heavy commercial traffic to by-pass the National War Memorial at Confederation Square and Wellington Street, the main artery for Government buildings, and also relieving serious traffic congestion on other bridges over the Rideau Canal. The eastern section of the span of the bridge over the railway yards, now supported by steel pillars, cannot be finished in conformity with the remainder of the bridge until the Union Station and rail yards are re-located in south Ottawa some years hence.

The Highways and Traffic Sub-Committee of the National Capital Planning Committee examined, and the Commission subsequently approved, road re-locations necessitated by the expansion of the Ottawa Airport and extensions to the Commission's driveway system, and made recommendations regarding a new riverside driveway from the Quebec end of the Champlain Bridges to Aylmer. The Gatineau Power Company *et al* made a generous gift to the Commission of the abandoned Hull Electric Railway right-of-way from Hull to Aylmer.

Installation of new railway facilities proceeded in accordance with the long-range plans to move the railway lines from central Ottawa and Hull to the outskirts, and subsequently to use the abandoned rights-of-way as the basis of a new arterial road system for the Capital. Land was acquired along the new rail belt for the re-location of industries that require rail services. Grading was completed for the rail belt and yards for the use of the Canadian National Railways along the Walkely Road at the south edge of Ottawa. Two highway overpasses on the Metcalfe and Russell Roads were completed, except for hard-surfacing of the roadways.

Construction was begun of a junction of the two C.N.R. lines near South March, a few miles west of the Capital, to enable traffic to be routed to the new belt line and yards. The installations may be ready for use in about two years, when the C.N.R. will transfer its operations from the crosstown tracks and yards, which bisect the Capital along Catherine Street. The abandoned crosstown right-of-way will be used for the construction of a new east-west traffic artery from Hurdman's Bridge to the west end of the Capital and a junction with Highway 17 beyond Britannia. The crosstown artery will be linked with Highway 17 on the east by an extension northeast of Hurdman's Bridge to the vicinity of Green's Creek. This will result in an entirely new main eastern entrance to the Capital for the Montreal Road, by-passing Eastview and built-up areas. It will also route through-traffic on Highway 17 away from the congested city centre.

Gatineau Park.—Gatineau Park is situated in the Laurentian Mountains of Quebec, north of the city of Hull and about eight miles from Ottawa. It was established by the Federal District Commission in 1938 for the enjoyment of the public in perpetuity. Known as the summer and winter playground of the National Capital, it is well provided with hiking trails, picnic and camping spots. Swimming, boating and fishing are enjoyed in its many lakes, and in the winter it is the skiing centre of the Capital District. The large country estate bequeathed to the nation by The Rt. Hon. W. L. MacKenzie King, and placed in the care of the Commission, is located on Kingsmere Lake in the southern section of the Park. The area of the Park was increased from about 28,000 to 32,000 acres in 1951 with the acquisition of the Edwards-Herridge property surrounding Mousseau (Harrington) Lake. Plans call for its ultimate development to about 80,000 acres. The Park is administered by a Superintendent and a small force of rangers who also act as game wardens, police constables and fire wardens. Facilities for its use by the public are added each year as funds permit.

Section 3.—Wildlife Resources and Conservation

The Canadian Wildlife Service.*—The Canadian Wildlife Service of the National Parks Branch, Department of Resources and Development, is responsible for attending to wildlife matters coming within the jurisdiction of the Federal Government, except those within the purview of the National Museum and certain activities closely related to Indian Affairs.

Its functions include acting in an advisory capacity with regard to conservation and management of wildlife in the Northwest Territories; advising and co-operating with the National Parks and Historic Sites Division regarding fish and wildlife problems in the National Parks; and administration of the Migratory Birds Convention Act, in conjunction with the Royal Canadian Mounted Police and in co-operation with the provincial game authorities. The Canadian Wildlife Service also handles national and international problems relating to Canada's wildlife resources, and co-operates with governmental and other agencies having similar interests and problems in Canada and elsewhere.

The Service issues permits for bird-banding in Canada, and is the Canadian clearing-house for bird-banding information. It issues permits to qualified persons to take migratory birds for scientific purposes; to take and possess migratory birds for propagating purposes; to collect eiderdown; to use firearms or other equipment for the control of migratory birds causing damage to agricultural, fishing or other interests; and to engage in the business of taxidermy.

The Canadian Wildlife Service plans and carries out scientific investigations concerning numbers, food, shelter, migration, reproduction, diseases, parasites, predators, competitors and uses of wild creatures in Canada. In certain of such investigations, e.g., the mid-winter waterfowl inventory, it works in close co-operation with United States authorities conducting parallel studies.

The Service is responsible for establishment and administration of bird sanctuaries under the Migratory Birds Convention Act. On Sept. 30, 1951, there were 80 bird sanctuaries, with a total area of 1,800 sq. miles.

* Revised by the Canadian Wildlife Service, Department of Resources and Development.

The Limnology Section of the Service concerns itself with the maintenance and improvement of sport fishing, the control of aquatic and semi-aquatic insects, the control of algæ, and other biological problems that arise in regard to water areas in the National Parks. It also acts in an advisory capacity to the Northern Administration and Lands Branch in connection with aquatic biological matters.

A series of special articles with relation to the wildlife resources of Canada are being carried in the Year Book. The 1951 edition carried an article on "Migratory Bird Protection in Canada". Game and fish abound in the National and Provincial Parks and although hunting is forbidden in these preserves the age-old art of angling can be enjoyed under the most favourable circumstances. The following article deals with this subject from the sportsman's viewpoint.

GAME FISH IN CANADA'S NATIONAL PARKS*

The universal appeal of angling, from the boy with the sapling, string and bent pin to the dry-fly "purist" with his imported hand-made rod, tapered line and delicate flies, creates a kinship which goes far deeper than a mere love of fish or even of catching them. Angling is much more than a battle of wits and equipment against the cunning of a fish, for it offers release from the cares of the work-a-day world and a chance to see and enjoy the unspoiled beauties of nature, together with the possible added thrill of capturing a colourful aquatic creature satisfying to the eye and often to the inner man as well.

Many anglers are experts in the mysteries of taking game fish from their native haunts. Experts also are the men whose work it is to replace the game fish and then to maintain their supply against an ever-increasing number of anglers. A few of the problems encountered in this work and the means by which they are overcome are discussed here, so that the angler may know something of the activity which precedes his angling holiday.

Angling in the National Parks is a major attraction for visitors and the sport has been perpetuated through a wise policy of research and management. The maintenance and improvement of angling in waters within National Parks, whether in the mountain parks of British Columbia and Alberta, on the Prairies, or in the Eastern Provinces, involves the solution of many problems. Some of these are basic to successful fish management in any area, others are peculiar to individual locations.

Problems dealing with the basic requirements for fish propagation involve such items as food, shelter, areas suitable for spawning, water temperatures and related factors. Special local problems may be dependent on such factors as rate of water flow, silt, dissolved gases in the water, presence of large numbers of animals or birds which feed on fish, high angling pressure, and competition of fish of several species for a common food supply.

The solution of such difficulties affecting the National Park waters calls for close teamwork by two Federal Government agencies—the Canadian Wildlife Service which acts in an advisory capacity regarding all fish and wildlife matters in the Parks and conducts scientific investigations as and where required, and the National Parks Service whose officers, guided by the results of the Wildlife Service investigations, operate the hatcheries and egg-collecting stations, distribute the fish, collect data from anglers and perform other related duties.

* Prepared under the direction of Major-General H. A. Young, Deputy Minister, Department of Resources and Development, by Victor E. F. Solman, Ph.D., Chief Biologist, Canadian Wildlife Service.

The Mountain National Parks.—From the Selkirk Mountains in British Columbia to the Maritimes in Eastern Canada, the National Parks present a wide variety of game fish that appeal to the discriminating and to the casual angler. In the western mountains, Jasper and Banff National Parks in Alberta possess no fewer than six species of trout—the rainbow, the cutthroat, the eastern brook or speckled trout, highly prized by most anglers, the lake trout, Dolly Varden and the brown trout varieties which add interest to the group. Waterton Lakes National Park, in the extreme southwest corner of Alberta, offers all of these species except brown trout. Pike also are taken in Jasper and Waterton Lakes Parks.

The cutthroat trout is common to the four National Parks in British Columbia—Yoho, Kootenay, Glacier and Mount Revelstoke. In addition the Dolly Varden is native to the waters of the first three and all except Glacier Park have rainbow trout. Lake trout await the lure in Yoho Park.

All seven western mountain National Parks mentioned have waters inhabited by the Rocky Mountain whitefish. This species, although not a true game fish, provides good sport for anglers on fly or bait at certain seasons and are a welcome addition to the pan.

The Prairie National Parks.—Descending from the mountains to the prairies, the angler finds the lakes of Prince Albert National Park in Saskatchewan and Riding Mountain National Park in Manitoba are the home of large pike, specimens of over 15 lb. in weight having been caught there on occasion. Prince Albert National Park also attracts the fisherman with lake trout and pickerel, trout in the larger lakes often attaining a weight of 35 lb.

Adult and yearling lake trout have been introduced into Clear Lake in Riding Mountain Park and these specimens are showing satisfactory growth. Suitable food organisms and spawning areas are present in the Lake, and a natural increase of the lake trout there will be a source of continuing enjoyment to the angler.

The Eastern National Parks.—Famous among the game fishes of Eastern Canada are the smallmouth and largemouth black bass and the giant maskinonge, all rivalling the mountain trout in popularity among sportsmen. These species provide good fishing in provincial waters adjacent to the Georgian Bay Islands and St. Lawrence Islands National Park in Ontario. The visitor to Point Pelee National Park, also in Ontario, may supply his creel with pike from the inland ponds or with pickerel and smallmouth black bass from the adjacent waters of Lake Erie.

Fundy National Park in New Brunswick, with its several lakes and streams, supports large numbers of eastern brook trout and Atlantic salmon angling facilities are being developed in the Bay. Several of the small lakes and ponds in Prince Edward Island National Park afford opportunities for angling of brook trout and white perch. Deep-sea fishing is also available in coastal waters adjacent to this Park. The Cape Breton Highlands National Park in Nova Scotia provides good angling for Atlantic salmon and eastern brook trout. Visitors to this Park also enjoy opportunities for catching swordfish in offshore waters.

Following is an annotated list of game fish in Canada's National Parks waters.*

American Grayling (*Thymallus signifer*).—Distinguishable by its long, high dorsal (back) fin, which is brilliantly coloured. Back is purple to brownish in colour and the underside white or greyish, with whitish-blue spots on body. Occurrence of this fish is rare in the Parks.

* Extracts from the Angler's Guides for the Mountain, Prairie, and Eastern National Parks.

Atlantic Salmon (*Salmo salar*).—The king of Canada's game fish. Back light brown and sides silvery, both sparsely marked with black spots, usually x-shaped. The young, called "parr", show vermillion and dark vertical bars. When they descend to the sea, the "smolts" are a bright silvery colour. The adults return to fresh water to spawn.

Brown Trout (*Salmo trutta*).—Back and sides decidedly brown; the back is covered with large black spots and the sides with red or dark spots surrounded by light rings.

Cutthroat Trout (*Salmo clarkii*).—Several sub-species, varying considerably in colour, occur in the mountain National Parks. Back generally dark, greenish to brownish green, profusely covered with black spots, which are usually more numerous toward the tail. Lower half of body yellowish-white to yellowish-brown, with fewer black spots than upper half. The gill cover is usually rosy in colour and this colouring may extend along the sides as in the Rainbow Trout. A red mark on the membrane of the lower jaw gives the fish its name.

Dolly Varden or Bull Trout (*Salvelinus malma*).—Colour is brownish to olive green, with large pink and sometimes orange spots on back and sides. Lower fins dusky, with pale margins, followed by darker hue; well forked tail.

Eastern Brook Trout or Speckled Trout (*Salvelinus fontinalis*).—Has a dark back with olive green vermiculations or worm-like markings; blue-ringed, red spots on the sides; back fin mottled black and olive green; pectoral and ventral fins pink with white edge. The colouring of this fish varies greatly with the environment and the season. When, in the eastern National Parks, this species returns to fresh water from the sea, it is silvery in colour; this silvery colour disappears after a time in fresh water.

Lake or Grey Trout (*Cristivomer namaycush*).—General colour grey to greyish green with paler spots. Dorsal (back) and caudal (tail) fins marked with darker hue. Tail fin forked. Frequently this fish attains a weight of 20 lb. or more.

Pike (*Esox lucius*) (sometimes called Northern Pike or Jackfish).—Dark olive body, grading to silver or white on lower side, back and sides mottled with white. Long bill-like snout, numerous needle-like teeth. Scales smooth, fins often pink.

Rainbow or Steelhead Trout (*Salmo gairdnerii*).—Dark greenish back; irregularly covered with black spots or flecks, most of which are above the lateral line. There is a definite rosy band along each side from head to tail. Below the rosy band the colour may vary from silver to cream.

Hybrids—Rainbow-Cutthroat Cross.—These hybrids are rapidly increasing in Banff National Park and may be found in Waterton Lakes National Park and other locations. This species usually favours the Rainbow in colour and markings but shows the red or orange marks under the lower jaw characteristic of the Cutthroat.

Rocky Mountain Whitefish (*Prosopium williamsoni*).—A small fish, faintly bluish in colour, with silvery sides. All fins tipped with black. Averages about one foot in length and has a small mouth. This species is often confused with the grayling.

Yellow Perch (*Perca flavescens*).—Back greenish, grading to golden yellow on sides; broad vertical dark green bars crossing each side; belly whitish. Pointed head; body deep with flattened sides. Spine at extreme end of opercle. Numerous small needle-like teeth; scales rough. Two dorsal (back) fins, the forward one with stiff spines.

Yellow Pikeperch or Walleye (*Stizostedion vitreum*) (sometimes called Pickerel).—Ranges from yellow to dark olive brown mottled with brassy flecks. Pointed head, long slender round body, numerous needle-like teeth, scales rough. Two dorsal (back) fins, the forward one with stiff spines.

White Perch or Silver Bass (*Morone americana*).—Back green or olive colour; sides paler green to silvery, usually with pale longitudinal streaks. Two dorsal fins, the forward one with stiff spines. Ventral fins also with spines. Scales large and rough.

PART III.—CLIMATE AND TIME ZONES

Section 1.—Climate

A comprehensive discussion of the climatic regions of Canada is available in the Year Book 1948-49, pp. 41-62, while detailed tabulations of climatic factors covering thirty-six meteorological stations located mostly at well-known or populous centres are given in the Year Book 1950, pp. 35-70. Other articles appearing in previous editions are listed under "Climate and Meteorology" in Chapter XXVIII of this volume.

Table 1 gives long-term temperature and precipitation data for 35 representative Canadian stations; Tables 2 and 3 provide monthly temperature and precipitation data during 1950 for these same stations.

Station	Height Above Sea ft.	Length of Record yrs.	TEMPERATURES (Fahrenheit)				Heating Factor Day- Degrees ¹	Killing Frost Average Dates		PRECIPITATION (inches)						Number of Days		
			Annual	Jan.	July	Highest On Record		Lowest On Record	Last in Spring	First in Autumn	Annual Total	Annual Snow	Jan.	Apr.	July			Oct.
																Rain	Total	
Gander, Nfld.	482	11	39.3	19.2	62.3	91	-16	9,477	May 29	Oct. 2	38.24	121.0	2.81	2.32	3.65	3.87	129	199
St. John's, Nfld.	296	67	40.9	23.5	59.6	93	-21	8,876	June 2	Oct. 10	53.78	101.1	5.31	4.16	3.54	5.27	147	208
Charlottetown, P.E.I.	186	65	41.7	17.8	65.6	98	-27	8,263	May 13	Oct. 22	61.47	113.0	3.76	2.77	2.98	4.07	119	162
Annapolis Royal, N.S.	10	25	44.4	23.4	64.4	89	-13	7,665	May 20	Oct. 6	41.41	74.8	4.20	2.77	3.40	4.19	115	140
Halifax, N.S.	83	75	44.0	24.6	64.7	89	-21	7,380	May 11	Oct. 14	55.74	70.8	5.40	4.54	3.79	5.42	130	156
Sydney, N.S.	48	69	42.3	22.1	63.6	98	-25	7,896	May 19	Oct. 23	97.9	107.3	5.16	4.03	3.37	4.70	127	165
Chatham, N.B.	98	50	40.2	12.2	66.6	102	-43	8,887	May 29	Sept. 29	40.74	107.3	3.38	3.02	3.91	3.97	107	151
Fredericton, N.B.	164	67	40.7	13.5	66.1	101	-35	8,663	May 20	Sept. 24	42.80	95.5	3.87	2.94	3.53	4.11	108	149
Saint John, N.B.	119	56	41.4	19.3	61.0	93	-21	8,081	May 4	Sept. 16	42.26	71.1	4.28	3.22	3.03	4.01	134	168
Arvida, Que.	335	10	36.4	3.6	65.0	95	-42	10,585	May 19	Sept. 19	38.93	116.1	2.90	2.53	4.81	3.53	112	176
Fort McKenzie, Que.	250	24	22.4	-12.5	54.2	91	-60	15,665	July 8	July 26	22.04	82.4	1.24	1.02	3.67	1.77	77	107
Lennoxville, Que.	498	9	44.3	12.8	66.2	99	-40	8,996	May 28	Sept. 9	39.56	89.4	3.45	2.60	4.12	3.63	104	150
Montreal, Que.	137	55	42.8	13.8	69.8	97	-20	8,284	Apr. 28	Sept. 17	40.80	112.3	3.76	2.60	3.74	3.42	112	164
Kapuskasing, Ont.	752	19	32.4	-1.7	62.4	101	-53	11,374	June 14	Sept. 1	27.59	91.0	2.00	1.82	3.43	2.50	95	182
Ottawa, Ont.	280	65	41.5	11.9	69.6	102	-35	8,674	May 7	Oct. 2	34.23	82.0	0.93	2.70	3.39	2.93	98	139
Port Arthur, Ont.	644	62	36.2	6.7	63.0	104	-41	10,045	May 26	Sept. 20	23.66	42.9	0.91	1.49	3.56	2.45	78	129
St. Catharines, Ont.	347	21	47.8	26.0	71.1	104	-10	6,607	May 7	Oct. 20	27.7	37.7	2.30	2.39	2.99	2.18	99	132
Toronto, Ont.	379	105	45.1	22.6	68.9	105	-26	7,236	May 2	Oct. 14	32.18	61.9	2.71	2.48	2.95	2.43	109	145
Churchill, Man.	43	30	17.8	-19.0	53.7	96	-57	15,735	June 28	Aug. 26	15.96	56.9	0.48	0.89	2.19	1.43	52	101
The Pas, Man.	890	27	30.6	-8.7	64.6	100	-54	12,160	May 30	Sept. 7	15.44	44.9	0.61	0.81	2.22	1.16	59	102
Winnipeg, Man.	786	66	35.0	-3.1	66.9	108	-54	10,841	May 27	Sept. 14	21.19	53.6	0.92	1.37	3.08	1.49	67	118
Prince Albert, Sask.	1,414	54	32.9	-4.3	63.4	103	-50	11,337	May 30	Sept. 10	16.11	51.8	0.51	0.74	2.18	0.84	62	116
Regina, Sask.	1,884	55	34.5	-0.7	64.8	111	-56	10,891	June 6	Sept. 10	28.0	28.1	0.51	0.74	2.38	0.86	59	109
Beaverlodge, Alta.	2,484	31	35.3	5.6	59.8	98	-54	10,950	June 4	Sept. 4	17.19	70.1	1.27	0.78	2.21	1.11	76	127
Calgary, Alta.	3,540	55	38.4	13.1	61.5	97	-49	9,111	June 1	Sept. 6	16.65	50.0	0.51	0.99	2.51	0.69	57	101
Edmonton, Alta.	2,219	58	36.6	5.9	61.6	99	-57	8,826	May 10	Sept. 6	17.38	46.4	0.88	0.83	3.32	0.75	73	133
Medicine Hat, Alta.	2,365	55	41.9	12.0	69.3	108	-51	8,495	May 12	Sept. 19	12.81	35.6	0.63	0.77	1.68	0.62	56	100
Granbrook, B.C.	3,014	35	40.7	16.7	63.2	102	-41	8,760	June 10	Aug. 28	14.41	56.7	1.80	0.63	1.14	0.89	69	106
Nelson, B.C.	2,235	39	45.2	24.4	66.4	103	-17	7,278	May 13	Sept. 30	27.77	89.3	3.47	1.57	1.62	2.35	102	131
Penticton, B.C.	1,121	32	47.8	26.8	68.3	105	-16	6,346	May 7	Oct. 3	10.85	24.0	0.98	0.63	0.79	0.83	83	102
Prince George, B.C.	2,218	27	38.5	12.9	59.6	102	-58	8,996	June 18	Nov. 27	19.98	62.7	1.81	0.84	1.63	1.99	123	162
Victoria, B.C.	228	54	49.5	38.7	69.0	95	-2	4,935	Mar. 18	Nov. 27	27.13	13.4	4.49	1.18	0.44	2.81	141	144
Dawson, Y.T.	1,062	41	22.8	-21.0	59.6	95	-73	14,620	June 11	Aug. 12	12.61	56.2	0.87	0.51	1.53	1.17	63	117
Copernice, N.W.T.	13	13	11.3	-18.9	50.1	87	-54	19,710	June 25	Aug. 22	10.72	57.0	0.57	0.84	1.33	1.16	40	103
Fort Good Hope, N.W.T.	214	31	17.0	-23.6	59.3	95	-79	17,520	June 15	Aug. 6	10.63	50.0	0.53	0.49	1.55	1.09	46	106

¹ Day-degrees represent the difference in temperature between the mean temperature of the air and the temperature of 65°F. multiplied by the number of days during which the outside temperature was lower than that figure, computed for the period Sept. 1 to May 31. Fuel consumption for heating purposes will be proportional to these totals.

2.—Temperature Data for 35 Weather Stations, by Months, 1950

Station	Monthly Mean Temperatures (Fahrenheit)												Annual Mean Temperature	Tem- perature Differ- ence from Normal for the Year	Annual Temperature Extremes	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.			Highest	Lowest
Gander, Nfld.	16.0	12.6	21.1	34.0	42.5	55.8	60.7	61.7	51.0	42.5	37.5	30.8	38.8	-0.5	87.2	-16.2
St. John's, Nfld.	22.0	19.4	24.8	36.9	40.7	54.8	60.3	61.4	52.4	45.4	38.6	36.5	41.1	0.2	82.0	-6.0
Charlottetown, P.E.I.	21.0	13.3	23.3	37.5	50.8	60.0	65.7	65.1	55.2	46.8	42.7	34.0	42.9	1.2	84.0	-12.0
Annapolis Royal, N.S.	20.4	20.8	28.4	41.0	51.6	60.1	64.9	65.6	54.4	48.3	45.1	35.3	44.6	0.2	81.0	-5.0
Halifax, N.S.	27.4	21.6	28.8	38.8	51.1	57.4	64.0	63.9	56.2	49.4	45.9	36.3	45.1	1.1	87.0	-6.2
Sydney, N.S.	22.6	15.7	22.0	35.9	47.8	57.6	64.8	63.4	54.5	46.9	43.0	35.0	42.4	0.1	84.8	-13.0
Chatham, N.B.	15.8	11.4	21.5	37.0	51.2	58.8	65.2	62.8	52.0	44.6	38.5	26.2	40.4	0.2	91.0	-21.0
Fredericton, N.B.	17.5	12.1	22.8	39.4	52.8	60.3	65.2	63.9	53.2	44.8	40.0	26.8	41.6	0.9	88.0	-21.0
Saint John, N.B.	23.8	17.3	26.2	38.8	50.2	56.8	61.5	61.6	53.8	47.4	42.8	31.3	42.6	1.2	80.2	-11.0
Arvida, Que.	8.5	4.8	16.6	36.4	52.9	58.2	64.3	60.6	51.8	42.9	34.0	16.7	37.3	-0.9	92.0	-30.0
Fort McKenzie, Que.	-21.3	-22.4	2.1	17.9	35.2	44.8	52.7	51.4	41.4	30.0	19.0	6.8	21.5	-0.9	87.5	-55.6
Lennoxville, Que.	22.0	12.2	19.5	37.8	53.8	63.0	65.8	62.5	52.6	46.8	38.0	22.7	41.4	1.1	87.0	-27.0
Montreal, Que.	22.4	14.5	23.2	40.4	57.4	66.1	70.3	66.4	56.0	50.0	39.1	23.4	44.1	1.3	89.1	-17.1
Kapuskasing, Ont.	-4.2	1.3	10.5	25.4	45.6	53.8	61.1	55.5	49.3	41.2	23.8	3.8	30.6	-1.8	85.8	-38.4
Ottawa, Ont.	20.8	11.7	19.2	37.9	55.2	64.2	68.3	64.2	54.9	48.3	36.1	19.4	41.7	0.2	88.0	-29.0
Fort William, Ont.	-2.0	8.8	14.0	28.1	45.2	55.4	60.6	56.6	52.4	44.0	22.6	7.8	32.8	-3.4	89.8	-40.8
St. Catharines, Ont.	33.2	25.0	29.8	40.1	53.8	65.5	69.0	68.4	60.2	53.6	39.1	27.6	47.0	-0.8	90.0	-2.0
Toronto, Ont.	31.5	23.9	28.3	39.5	55.2	64.5	68.8	69.0	59.5	53.2	38.8	28.6	46.7	0.8	88.2	-11.5
Churchill, Man.	-33.0	-19.9	-9.0	9.6	29.4	38.5	52.0	50.8	44.0	28.6	7.5	-8.2	15.7	-2.1	84.6	-46.1
The Pas, Man.	-26.5	-2.0	8.6	28.2	47.8	54.5	64.5	58.6	52.6	38.0	13.7	-4.0	27.8	-2.8	95.0	-47.0
Winnipeg, Man.	-16.0	1.0	12.3	29.2	48.6	50.1	64.8	61.6	56.8	44.8	18.2	1.4	31.8	-3.2	93.7	-40.0
Prince Albert, Sask.	-27.2	0.2	10.2	31.2	49.0	58.2	63.2	59.2	52.0	38.8	14.2	1.6	29.0	-3.9	95.2	-56.2
Regina, Sask.	-20.6	4.4	12.4	31.0	48.1	58.1	63.5	61.8	54.1	41.8	14.7	5.2	31.1	-3.4	93.2	-50.3
Beaverlodge, Alta.	-16.4	8.2	18.2	31.4	48.3	61.1	60.4	54.8	53.6	35.3	8.6	14.5	31.5	-3.4	90.1	-47.1
Calgary, Alta.	-13.6	20.2	19.0	35.5	46.8	56.0	60.1	57.0	52.0	38.3	19.8	20.8	34.3	-4.1	88.3	-41.3
Edmonton, Alta.	-18.0	9.3	18.7	35.6	50.4	60.8	63.9	57.6	54.2	36.0	13.3	11.8	32.8	-3.8	90.9	-47.8
Medicine Hat, Alta.	-17.6	20.0	24.8	41.2	51.8	61.6	67.6	63.1	56.8	43.4	21.0	20.2	38.1	-3.8	97.0	-48.6
Granbrook, B.C.	-6.9	23.8	29.6	41.0	49.5	58.3	64.1	62.4	55.5	41.2	28.0	24.5	39.2	-1.5	90.2	-41.5
Nelson, B.C.	10.2	20.6	25.2	41.2	53.2	61.9	67.9	66.6	60.6	45.2	34.6	33.3	45.2	0.0	94.0	-16.2
Penticton, B.C.	8.3	20.8	30.5	45.4	54.2	64.4	68.0	66.0	59.6	47.0	36.7	35.9	45.9	-1.9	97.8	-16.3
Prince George, B.C.	-19.6	23.8	29.6	35.8	46.0	58.6	65.8	64.0	50.5	36.4	15.4	21.8	34.0	-4.5	87.9	-57.8
Victoria, B.C.	26.1	40.6	42.2	47.3	51.2	57.8	59.9	60.0	56.8	49.6	44.0	44.6	48.3	-1.2	80.4	6.4
Dawson, Y.T.	-21.6	-24.7	12.9	28.2	47.2	61.0	60.9	55.6	46.0	25.4	-17.4	-4.0	22.5	-0.3	93.4	-59.6
Coppermine, N.W.T.	-25.8	-23.8	-9.2	-0.4	22.4	38.1	47.0	43.6	38.8	17.0	-3.4	-15.0	10.8	-0.5	78.4	-44.9
Fort Good Hope, N.W.T.	-13.6	-24.4	-3.2	13.4	40.6	58.7	58.6	51.2	44.1	19.1	-10.6	-14.2	18.3	1.3	88.0	-55.0

3.—Precipitation Data for 35 Weather Stations, by Months, 1950

Station	Monthly Precipitation (inches)												Annual Precipitation (inches)		Total Inches Precipitation Difference from Normal for Year	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Rain-fall	Snow-fall		Total Precipitation
Gander, Nfld.	1.77	2.99	1.76	4.67	2.60	1.86	3.28	2.33	1.14	5.29	1.82	2.61	22.54	95.8	32.12	-6.12
St. John's, Nfld.	4.13	6.29	7.16	5.45	3.05	1.58	1.31	2.41	2.00	4.80	1.70	4.26	33.56	106.7	44.23	-9.55
Charlottetown, P.E.I.	3.49	3.22	1.90	2.58	1.04	2.39	3.22	6.94	1.05	2.44	3.48	3.94	28.84	88.5	35.63	-3.78
Annapolis Royal, N.S.	3.41	2.36	4.41	2.56	1.32	3.15	2.80	7.45	2.69	2.00	8.82	4.71	40.84	51.4	45.68	4.27
Halifax, N.S.	4.93	3.09	4.22	4.01	2.09	2.70	1.67	3.88	3.55	1.31	4.89	5.72	35.91	91.6	45.07	-10.07
Sydney, N.S.	4.07	4.23	4.26	5.51	3.28	2.02	1.38	3.37	1.60	2.51	2.28	5.72	29.29	109.4	40.23	-10.61
Chatham, N.B.	3.25	3.57	1.53	2.73	0.85	4.50	2.60	6.47	0.60	4.27	8.67	4.78	35.52	86.2	44.14	3.40
Fredericton, N.B.	4.11	4.51	3.22	3.73	1.18	6.18	2.86	5.51	0.89	3.65	9.49	7.15	43.10	113.8	51.48	11.68
St. John, N.B.	6.07	3.89	4.43	3.39	1.39	3.10	3.23	7.43	0.92	3.54	11.11	7.67	44.97	112.5	56.22	13.96
Arvida, Que.	3.68	2.48	2.34	2.76	1.32	6.94	3.99	3.36	1.97	3.39	4.47	3.15	30.08	97.7	39.85	0.92
Fort McKenzie, Que.	0.40	0.14	1.95	0.91	1.26	2.96	3.84	2.32	2.24	1.01	1.55	0.94	12.30	66.4	18.94	-3.10
Lennoxville, Que.	4.30	3.27	3.61	2.81	1.53	3.75	2.46	6.65	2.31	3.16	4.99	3.27	31.16	117.7	42.93	2.13
Montreal, Que.	4.00	4.16	4.52	2.68	2.35	2.12	5.06	2.78	2.43	2.39	6.17	4.07	31.16	117.7	42.93	2.13
Kapuskasing, Ont.	4.02	1.13	2.70	1.66	3.68	5.94	2.33	1.26	1.91	2.12	6.10	2.53	17.39	180.0	35.39	7.80
Ottawa, Ont.	3.83	2.94	2.56	2.13	2.65	2.36	5.74	3.99	1.38	2.00	4.22	2.95	27.64	91.1	36.75	2.52
Port William, Ont.	3.87	1.58	2.70	3.30	4.43	4.73	4.24	2.73	3.02	4.49	4.24	1.46	24.39	164.0	40.79	9.55
St. Catharines, Ont.	3.24	3.62	2.15	1.73	1.49	1.88	2.67	3.98	2.29	2.33	4.12	2.07	26.01	55.6	31.57	4.54
Toronto, Ont.	4.02	3.95	2.29	2.20	1.04	2.22	4.33	3.84	0.81	3.96	3.97	1.06	25.63	80.6	33.69	1.63
Churchill, Man.	0.03	1.11	0.40	0.71	2.23	1.01	0.65	3.80	1.55	2.60	2.09	1.44	9.51	81.1	17.62	1.66
The Pas, Man.	0.90	1.50	0.15	1.01	1.51	3.44	1.82	3.56	0.71	2.19	1.57	0.80	13.75	54.1	19.16	3.72
Winnipeg, Man.	1.83	0.69	0.37	1.71	4.62	3.26	2.03	1.72	3.22	0.91	0.95	1.09	15.15	72.5	22.40	1.21
Prince Albert, Sask.	0.76	1.00	0.08	1.24	1.41	2.58	3.98	1.75	0.68	1.82	1.84	1.49	11.92	67.1	18.63	2.52
Regina, Sask.	0.81	0.37	1.11	1.13	1.53	4.05	2.26	2.21	1.03	0.60	1.32	0.90	11.69	56.8	17.37	2.67
Beaverlodge, Alta.	0.41	1.19	0.19	0.96	2.20	0.55	2.42	2.21	0.91	0.65	2.20	0.91	8.44	63.9	14.83	-2.36
Calgary, Alta.	0.54	0.58	1.54	0.94	0.83	1.87	5.26	3.05	0.53	1.36	0.77	0.16	11.90	55.3	17.43	0.78
Edmonton, Alta.	1.23	0.35	0.20	1.01	0.75	1.40	2.79	2.89	0.96	0.19	0.80	0.34	8.59	42.9	12.88	-4.50
Medicine Hat, Alta.	0.63	0.34	0.47	0.31	0.82	1.60	2.41	2.78	0.29	2.12	0.39	0.60	9.68	30.8	12.76	-0.05
Cranbrook, B.C.	3.70	0.90	2.60	1.20	0.40	1.45	1.25	1.55	0.30	2.70	1.44	3.15	9.49	111.5	20.64	6.23
Nelson, B.C.	5.12	3.42	3.31	1.44	0.37	1.81	0.93	1.56	0.53	6.72	3.21	4.55	23.85	91.2	32.97	5.23
Penticton, B.C.	1.10	1.20	1.84	1.18	0.29	1.06	1.75	0.73	0.43	1.48	1.78	1.15	10.08	84.1	13.49	2.64
Prince George, B.C.	1.74	2.37	1.04	0.67	1.88	0.54	2.00	3.72	0.53	1.51	2.83	1.93	11.74	90.2	20.76	0.78
Victoria, B.C.	4.80	2.94	4.74	1.27	0.71	0.23	1.00	1.22	0.43	5.30	3.85	3.56	25.76	43.5	30.11	-2.88
Dawson, Y.T.	1.27	0.88	0.95	0.02	1.61	0.11	2.28	0.19	1.11	0.56	1.58	1.27	5.28	65.5	11.83	-0.78
Coppermine, N.W.T.	0.25	0.16	0.52	0.33	0.22	0.43	2.75	0.48	1.19	0.72	0.39	1.33	4.54	42.3	8.77	-1.95
Fort Good Hope, N.W.T.	1.88	0.61	0.09	0.11	0.49	1.03	0.77	0.90	0.99	0.63	0.93	0.40	3.72	51.6	8.88	-1.75

Section 2.—Standard Time and Time Zones

In former times, when transportation was slow, time was based on 'sun time'. The difference in sun time as between communities was, of course, determined by the difference in their longitude. A locality precisely one degree of longitude west of another in the same latitude naturally had sunrise and sunset four minutes later than did the community one degree farther east.

The advent of rapid transportation made these 'local times' extremely inconvenient for travellers. It was almost impossible to work out railway time-tables on the basis of the local times of each community. Consequently, in Great Britain, where the differences of longitude are comparatively small, the problem was solved in 1880 by placing the whole country on the time of Greenwich Observatory, and the time in Ireland was standardized at twenty-five minutes behind Greenwich time, being the time of Dublin.

From 1878, Sir Sanford Fleming advocated standard time and, at a world conference held at Washington, D.C., in 1884, 'standard time' was adopted. Standard time sets the number of times in the world at 24, each time zone to extend over one twenty-fourth of the surface of the earth and to include all the territory between two meridians, 15° longitude apart. Standard time would be Greenwich time, all other time zones being a definite number of hours either in advance of or behind Greenwich. As the North American Continent extends over such an enormous distance from east to west, it was necessary to establish a number of time zones. Atlantic, Eastern, Central, Mountain, Pacific, Yukon and Alaska time zones have times, respectively, four, five, six, seven, eight, nine and ten hours behind Greenwich. The differences are usually expressed in intervals of so many hours difference from Greenwich; however, some localities of smaller area have times which are not an exact hours difference from Greenwich.

Canada has seven time zones, the most easterly being Newfoundland standard time, three hours and thirty minutes behind Greenwich mean time. Atlantic standard time, which is local time at the 60th meridian running near Sydney, N.S., and is four hours behind Greenwich, is used in the Maritime Provinces and those parts of Quebec and the Northwest Territories east of the 68th meridian of west longitude. Eastern standard time, which is the local time at the 75th meridian running near Cornwall, Ont., and is thus five hours behind Greenwich, is used in Quebec west of the 68th meridian, in Ontario east of the 90th meridian and in the Northwest Territories between the 68th and 85th meridians. Central standard time, which is the local time at the 90th meridian, is six hours behind Greenwich and is used in Ontario west of the 90th meridian, in Manitoba and the Northwest Territories between the 85th and the 102nd meridians and in the southeasterly part of Saskatchewan. Mountain time, which is the local time at the 105th meridian running near Regina, is seven hours behind Greenwich and is used throughout Saskatchewan except in the southeasterly part, throughout Alberta and in that part of the Northwest Territories between the 102nd and 120th meridians. Pacific standard time, which is local time of the 120th meridian running near Kamloops, B.C., is eight hours behind Greenwich and is used throughout British Columbia and in that part of the Northwest Territories lying west of the 120th meridian. Yukon standard time, which is the local time at the 135th meridian, running near Whitehorse, Yukon, is nine hours behind Greenwich and is used throughout Yukon.

Territory. Thus, throughout Canada there are seven different standard times roughly corresponding with the 88 degrees of longitude between St. John's, Nfld., and the Alaskan boundary.

Some municipalities adopt the time used by the local railways, which in some cases differs from the standard, and there are also villages that adopt such time as seems best to suit their convenience, but, in general, the legal boundaries of the different time zones are actually in use.



Daylight Saving Time.—For some years before World War I there was active propaganda, particularly in the cities, for the use of an earlier time, usually referred to as 'daylight saving time', one hour ahead of standard time, during the summer months. It was considered, both from the economic and from the health point of view, that people in industrial towns and cities would gain by having longer periods of sunlight at their disposal for recreation. Canada adopted daylight saving time in 1918, but the Canadian Act lapsed at the end of that year. Since that date, however, various towns and cities have adopted daylight saving by-laws for varying periods in the summer months.

Legal Authority for the Time Zones.—Most of the regulations made in Canada concerning standard time have been passed by the provincial legislatures and the Northwest Territories Council. The exceptions include: the Daylight Saving Act of 1918; an Order in Council (P.C. 4994) issued in 1940 requiring the continuation, for an additional period, of daylight saving time in a number of places in Ontario and Quebec where it had already been in force for the summer; and an Order in Council in 1942 (P.C. 547) making daylight saving time nation-wide, and later revoked by Order in Council (P.C. 6102), ending the observance on Sept. 30, 1945. Legislation, besides determining the boundaries of zones, regulates

such matters as the times of coming into effect or expiration of Acts, ordinances, contracts and agreements, times of opening and closing registration offices, law courts, post offices and other public offices, times of open or close seasons for game, and times of opening and closing business houses and places of amusement.

PART IV.—ASTROPHYSICS

The science of astrophysics is carried on by three Canadian institutions: the Dominion Observatory, Ottawa, Ont., the Dominion Astrophysical Observatory, Victoria, B.C. (operated by the Department of Mines and Technical Surveys), and the David Dunlap Observatory, associated with the University of Toronto. Of the two Government institutions, the Dominion Observatory at Ottawa has specialized mainly in the astronomy of position in solar physics and in various branches of geophysical work, while the major effort in astrophysics has been concentrated at the Dominion Astrophysical Observatory at Victoria, B.C. The David Dunlap Observatory is a newer institution founded in 1935 with very fine astrophysical equipment of a kind similar to that in use at Victoria. It not only performs the function of a privately financed and administrated research institution but is also the nucleus of a university department of astronomy. A special article dealing specifically with the work of the Dominion Astrophysical Observatory at Victoria, B.C., appears in the Year Book, 1948-49, pp. 63-71.

CHAPTER II.—CONSTITUTION AND GOVERNMENT

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—THE CANADIAN CONSTITUTION

The Government of Canada is provided for by the British North America Act (30-31 Vict., c. 3) of 1867 and subsequent amendments. These statutes of the United Kingdom Parliament, usually referred to as 'The British North America Acts, 1867-1951', form the written basis of the constitution by which Canada is governed.

The British North America Acts, 1867-1951, do not contain the complete description of Canada's constitution. External restraints upon Canadian autonomy have been removed by the development of conventions and usages which, although not all expressed in laws, are equally binding. In a similar fashion in the domestic field, the machinery of Canadian government, both federal and provincial, operates partly in accordance with the written constitution, as far as it goes, and partly in accordance with conventions and usages which are frequently called the 'unwritten constitution'. One such convention is that only a committee of the Queen's Privy Council for Canada meets to transact business and never the whole membership. Two more sources of the constitution of Canada are the laws of the Federal Parliament itself* and the decisions of the Courts on matters of constitutional law.† Finally, the executive power in respect of Canada is governed only in general terms by statutes. The commissions and instructions of successive Governors General contain a wealth of constitutional source material.‡

* See the collection of constitutional documents entitled *British North America Act and Amendments, 1867-1948* (King's Printer, 1948, Ottawa) for some of these laws. A recent and important addition is 13 Geo. VI, c. 37, which gives the Supreme Court of Canada the exclusive ultimate appellate civil and criminal jurisdiction in Canada and abolishes appeals to the Privy Council in London, England.

† See the collection of cases before the Juridical Committee of the Privy Council in three volumes: Cameron, *The Canadian Constitution* (Butterworth, 1915, Winnipeg); Cameron, *The Canadian Constitution, Vol. II* (Carswell, 1930, Toronto); and Plaxton, *Canadian Constitutional Decisions* (King's Printer, 1939, Ottawa).

‡ See pamphlet entitled *Letters Patent constituting the Office of Governor General in Canada, effective October 1, 1947, with Appendices* (King's Printer, 1947, Ottawa).

The two basic characteristics of the Canadian constitution are that it is federal and that, apart from the federal aspect, it is modelled closely on the British Parliamentary system.

Federation occurred in 1867 with the union of three colonies, Nova Scotia, New Brunswick, and Canada, which was divided into two provinces, Ontario and Quebec. The colony of British Columbia joined in 1871 and Prince Edward Island in 1873. Three other provinces were created out of portions of Rupert's Land and the North-Western Territory held by the Hudson's Bay Company and transferred to Canada, June 23, 1870: Manitoba in 1870, and Saskatchewan and Alberta in 1905. Newfoundland, by a majority vote in a national referendum taken on July 22, 1948, decided to enter Confederation and became a province of Canada on Mar. 31, 1949. (*See also p. 64.*)

The British North America Act, 1867, and amendments, divides the field of legislative and executive power between national and provincial authorities. It provides also the legal framework for national and provincial political institutions, but leaves the provinces full discretion to amend their own constitutions,* except with respect to the office of Lieutenant-Governor who is appointed by the Governor General in Council and is the formal head of Provincial Government, and except that no provincial legislative authority may invade the field allotted by the Act to the Parliament of Canada.

An outline of federal-provincial relations between the Dominion-Provincial Conference of December 1936 and the conclusion of the post-war tax agreements of 1947 will be found in the 1948-49 Year Book, pp. 116-122. Further developments are outlined in the 1951 edition, pp. 102-105.

See list of Special Articles in Chapter XXVIII for reference to the Evolution and Development of the Canadian Constitution and the Terms of Union of Newfoundland with Canada.

Canada's Status in the Commonwealth of Nations.—The several stages in the development of the status of Canada have been authoritatively described in the reports of successive Imperial Conferences including that held at London in 1926, which defined the group of self-governing communities consisting of the United Kingdom and the Dominions as "autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or external affairs, though united by a common allegiance to the Crown, and freely associated as members of the British Commonwealth of Nations". That Conference also recognized that, as a consequence of this equality of status, the Governor General of a Dominion "is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain", and that "it is the right of the Government of each Dominion to advise the Crown in all matters relating to its own affairs". Simultaneously, with this change in the constitutional relationship between the several parts of the British Commonwealth of Nations, there developed, as a complementary aspect of nationhood, the assumption by the several Dominions of further responsibilities and rights of sovereign States in their relations with other members of the community of nations. Membership in the League of Nations and, more recently, in the United Nations, the exercise of treaty-making powers and the establishment of separate

* For the power of the Federal Parliament to amend the constitution of Canada, see 'The British North America (No. 2) Act, 1949', printed in Vol. II of the *Statutes of Canada* for 1949.

diplomatic representation in a number of foreign countries have characterized this phase in the growth of Canada. More explicit recognition of the implications of the principles of equality of status was accorded in the Statute of Westminster of 1931, which provided for the removal of the remaining limitations on the legislative autonomy of the Commonwealth nations.

Thus Canada, under the Crown, has equality of status with the United Kingdom and the other Commonwealth nations in both domestic and foreign affairs; its government advises the Crown in the person of the Governor General on all matters relating to Canada. Canada has membership in the United Nations; makes its own treaties; appoints its own ambassadors and other representatives abroad; levies its own taxes; makes its own laws which are executed by a government dependent on the will of a majority of the people; and maintains its own military, naval and air forces. In short, Canada has achieved the full status of democratic nationhood within the Commonwealth of Nations.

PART II.—MACHINERY OF GOVERNMENT*

The Federal Parliament consists of the Governor General and the Privy Council (of which the Cabinet, or Ministry, is an active committee responsible to the Legislature for all matters of policy) at the head of the Executive Branch, the Senate and House of Commons comprising the Legislative Branch, and the Courts representing the Judicial Branch of government. There is no clearly defined separation of powers since those members of the Privy Council who are members of the Cabinet have seats in the Legislature, and within that body, in turn, the Senate exercises some judicial functions. Each of the provinces has a similar system. In both Federal and Provincial Governments there is responsible government whereby the Ministry is answerable for its conduct to the elected representatives of the people in the House of Commons or the Legislative Assemblies. This device is not mentioned in the British North America Act but, except for some modifications to meet local conditions, British practice has been followed. Under the constitution the Courts administer the law as it is drawn up and amended by the Legislature.

Section 1.—The Federal Government

Subsection 1.—The Executive

The Governor General.—The Governor General, appointed by the Queen on the advice of the Prime Minister of Canada, traditionally serves for a term of five years. He exercises such authority as is entrusted to him under the Letters Patent constituting the Office of Governor General. Acting under the recommendations of his responsible advisers, and in accordance with the Letters Patent, he summons, prorogues and dissolves Parliament and assents to bills. New Letters Patent were issued under the Great Seal of Canada, effective Oct. 1, 1947, and under them he is empowered to exercise, on the advice of the Queen's Privy Council for Canada, any of the powers and authorities of the Crown in respect of Canada.

* Brought up to Mar. 31, 1952; Federal Government appointments made between that date and the closing off of the volume for press appear in the Annual Register at the end of this publication.

1.—Governors General of Canada since Confederation

Name	Date of Appointment	Date of Assumption of Office
VISCOUNT MONCK, G.C.M.G.	June 1, 1867	July 1, 1867
LORD LISGAR, G.C.M.G.	Dec. 29, 1868	Feb. 2, 1869
The EARL OF DUFFERIN, K.P., K.C.B., G.C.M.G.	May 22, 1872	June 25, 1872
The MARQUIS OF LORNE, K.T., G.C.M.G.	Oct. 5, 1878	Nov. 25, 1878
The MARQUIS OF LANDSOWNE, G.C.M.G.	Aug. 18, 1883	Oct. 23, 1883
LORD STANLEY OF PRESTON, G.C.B.	May 1, 1888	June 11, 1888
The EARL OF ABERDEEN, K.T., G.C.M.G.	May 22, 1893	Sept. 18, 1893
The EARL OF MINTO, G.C.M.G.	July 30, 1898	Nov. 12, 1898
EARL GREY, G.C.M.G.	Sept. 26, 1904	Dec. 10, 1904
FIELD MARSHAL H.R.H. The DUKE OF CONNAUGHT, K.G.	Mar. 21, 1911	Oct. 13, 1911
The DUKE OF DEVONSHIRE, K.G., G.C.M.G., G.C.V.O.	Aug. 19, 1916	Nov. 11, 1916
GENERAL THE LORD BYNG OF VIMY, G.C.B., G.C.M.G., M.V.O.	Aug. 2, 1921	Aug. 11, 1921
VISCOUNT WILLINGDON OF RATON, G.C.S.I., G.C.I.E., G.B.E.	Aug. 5, 1926	Oct. 2, 1926
The EARL OF BESSBOROUGH, G.C.M.G.	Feb. 9, 1931	Apr. 4, 1931
LORD TWEEDSMUIR OF ELSFIELD, G.C.M.G., G.C.V.O., C.H.	Aug. 10, 1935	Nov. 2, 1935
MAJOR-GENERAL THE EARL OF ATHLONE, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., D.S.O.	Apr. 3, 1940	June 21, 1940
FIELD MARSHAL VISCOUNT ALEXANDER OF TUNIS, K.G., G.C.B., G.C.M.G., C.S.I., D.S.O., M.C., A.D.C.	Aug. 1, 1945	Apr. 12, 1946
The Right Honourable VINCENT MASSEY, C.H.	Jan. 21, 1952	Feb. 28, 1952

The Cabinet.—Canada's system of responsible government provides for a Cabinet or Ministry composed of members of the House of Commons or the Senate. The Cabinet is a committee of the Queen's Privy Council for Canada. Without enlarging upon the features of the system, it may be sufficient to note that the Cabinet is responsible to the House of Commons, initiates nearly all the legislation placed before Parliament and, following established precedent, resigns office when it becomes evident that it no longer holds the confidence of the representatives of the people. Its members are chosen by the Prime Minister and each generally assumes charge of one of the various departments of government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio.

2.—Prime Ministers since Confederation

Ministry	Prime Minister	Length of Administration
1	Rt. Hon. Sir JOHN ALEXANDER MACDONALD	July 1, 1867 - Nov. 5, 1873
2	Hon. ALEXANDER MACKENZIE	Nov. 7, 1873 - Oct. 16, 1878
3	Rt. Hon. Sir JOHN ALEXANDER MACDONALD	Oct. 17, 1878 - June 6, 1891
4	Hon. Sir JOHN JOSEPH CALDWELL ABBOTT	June 16, 1891 - Nov. 24, 1892
5	Rt. Hon. Sir JOHN SPARROW DAVID THOMPSON	Dec. 5, 1892 - Dec. 12, 1894
6	Hon. Sir MACKENZIE BOWELL	Dec. 21, 1894 - Apr. 27, 1896
7	Hon. Sir CHARLES TUPPER	May 1, 1896 - July 8, 1896
8	Rt. Hon. Sir WILFRID LAURIER	July 11, 1896 - Oct. 6, 1911
9	Rt. Hon. Sir ROBERT LAIRD BORDEN	Oct. 10, 1911 - Oct. 12, 1917
10	Rt. Hon. Sir ROBERT LAIRD BORDEN	(Conservative Administration) Oct. 12, 1917 - July 10, 1920
11	Rt. Hon. ARTHUR MEIGHEN	(Unionist Administration) July 10, 1920 - Dec. 29, 1921
12	Rt. Hon. WILLIAM LYON MACKENZIE KING	(Unionist—"National Liberal and Conservative Party") Dec. 29, 1921 - June 28, 1926
13	Rt. Hon. ARTHUR MEIGHEN	June 29, 1926 - Sept. 25, 1926
14	Rt. Hon. WILLIAM LYON MACKENZIE KING	Sept. 25, 1926 - Aug. 6, 1930
15	Rt. Hon. RICHARD BDFORD BENNETT	Aug. 7, 1930 - Oct. 23, 1935
16	Rt. Hon. WILLIAM LYON MACKENZIE KING	Oct. 23, 1935 - Nov. 15, 1948
17	Rt. Hon. LOUIS STEPHEN ST. LAURENT	Nov. 15, 1948 - ...

3.—Members of the Seventeenth Ministry as at Mar. 31, 1952

(According to precedence of Ministers)

NOTE.—A complete list of the members of Federal Ministries from Confederation to 1913 appears in the 1912 Year Book, pp. 422-429. Later Ministries will be found in subsequent editions of the Year Book.

Office	Occupant	Date of First Appointment ¹	Date of Appointment to Present Portfolio
Prime Minister and President of the Queen's Privy Council for Canada.	Rt. Hon. LOUIS STEPHEN ST. LAURENT.....	Dec. 10, 1941	Nov. 15, 1948
Minister of Trade and Commerce and Minister of Defence Production....	Rt. Hon. C. D. HOWE.....	Oct. 23, 1935	{ Jan. 19, 1948 Mar. 22, 1951
Minister of Agriculture.....	Rt. Hon. J. G. GARDINER.....	Oct. 28, 1935	Oct. 28, 1935
Minister of Public Works.....	Hon. ALPHONSE FOURNIER.....	Oct. 6, 1942	Oct. 6, 1942
Minister of National Defence.....	Hon. BROOKE CLAXTON.....	Oct. 13, 1944	Dec. 12, 1946
Minister of Transport.....	Hon. LIONEL CHEVRIER.....	Apr. 18, 1945	Apr. 18, 1945
Minister of National Health and Welfare.....	Hon. PAUL MARTIN.....	Apr. 18, 1945	Dec. 12, 1946
Minister of Finance and Receiver General.....	Hon. D. C. ARBOTT.....	Apr. 18, 1945	Dec. 10, 1946
Minister of National Revenue.....	Hon. J. J. McCANN.....	Apr. 18, 1945	Apr. 18, 1945
Leader of the Government in the Senate.....	Hon. WISHART McL. ROBERTSON.....	Aug. 29, 1945	Aug. 29, 1945
Minister of Labour.....	Hon. M. F. GREGG.....	Jan. 19, 1948	Aug. 7, 1950
Minister of Fisheries.....	Hon. R. W. MAYHEW.....	June 11, 1948	June 11, 1948
Secretary of State for External Affairs.....	Hon. L. B. PEARSON.....	Sept. 10, 1948	Sept. 10, 1948
Minister of Justice and Attorney General.....	Hon. S. S. GARSON.....	Nov. 15, 1948	Nov. 15, 1948
Minister of Resources and Development.....	Hon. R. H. WINTERS.....	Nov. 15, 1948	Jan. 18, 1950
Secretary of State of Canada.....	Hon. F. GORDON BRADLEY.....	Apr. 1, 1949	Apr. 1, 1949
Minister of Veterans Affairs.....	Hon. HUGUES LAPOINTE.....	Aug. 24, 1949	Aug. 7, 1950
Minister of Citizenship and Immigration.....	Hon. W. E. HARRIS.....	Jan. 18, 1950	Jan. 18, 1950
Minister of Mines and Technical Surveys.....	Hon. GEORGE PRUDHAM.....	Dec. 13, 1950	Dec. 13, 1950
Postmaster General.....	Hon. ALcide Côté.....	Feb. 13, 1952	Feb. 13, 1952

¹ Appointee was not necessarily sworn in on date given.

Administrative duties in the various departments of government became so burdensome during World War II that Parliamentary Assistants were appointed to assist six Cabinet Ministers with their parliamentary duties. The practice was extended after the War to include Parliamentary Assistants for 13 Ministers, as listed below:—

To Minister of Trade and Commerce.....	G. J. McILRAITH
To Minister of Labour.....	PAUL E. Côté
To Minister of Agriculture.....	ROBERT McCUBBIN
To Minister of Fisheries.....	J. WATSON MacNAUGHT
To Minister of Veterans Affairs.....	L. A. Mutch
To Minister of National Defence.....	J. A. BLANCHETTE
To Minister of Finance.....	JAMES SINCLAIR
To Minister of Transport.....	W. M. BENEDICKSON
To Postmaster General.....	L. LANGLOIS
To Secretary of State for External Affairs.....	JEAN LESAGE
To Minister of National Defence.....	R. O. CAMPNEY
To Minister of National Health and Welfare.....	E. A. McCUSKER
To Minister of Defence Production.....	JOHN H. DICKEY

The Privy Council.—The Queen's Privy Council for Canada is composed of about seventy members who are sworn of the Council by the Governor General, on the advice of the Prime Minister, and who retain their membership for life. The Council consists, chiefly, of present and former Ministers of the Crown. It does not meet as a functioning body and its constitutional responsibilities as adviser

to the Crown in respect to Canada are performed exclusively by the Ministers who constitute the Cabinet of the day and serve as the Committee of the Queen's Privy Council for Canada.

4.—Members of the Queen's Privy Council for Canada, According to Seniority Therein,¹ as at Mar. 31, 1952

Clerk of the Privy Council and
Secretary to the Cabinet..... N. A. ROBERTSON
Assistant Clerk..... A. M. HILL

NOTE.—In this list the prefix "The Rt. Hon." indicates membership in the United Kingdom Privy Council. Besides those mentioned in this list, The Rt. Hon. Sir Lyman P. Duff, G.C.M.G. retired Chief Justice of Canada, and The Rt. Hon. Thibaudeau Rinfret, Chief Justice of Canada, are members of the United Kingdom Privy Council.

Name	Date When Sworn In	Name	Date When Sworn In
The Rt. Hon. Sir THOMAS WHITE.	Oct. 10, 1911	The Hon. COLIN WILLIAM GEORGE GIBSON.....	July 8, 1940
The Rt. Hon. ARTHUR MEIGHEN.	Oct. 2, 1915	The Hon. WILLIAM PATE MULOCK.	July 8, 1940
The Hon. ESIOFF LEON PATENAUDE	Oct. 6, 1915	The Hon. ANGUS LEWIS MACDONALD.....	July 12, 1940
The Rt. Hon. WILLIAM MORRIS HUGHES.....	Feb. 18, 1916	The Hon. LEIGHTON GOLDIE MCCARTHY.....	Mar. 4, 1941
The Hon. ALBERT SEVIGNY.....	Jan. 8, 1917	The Hon. JOSEPH THORARINN THORSON.....	June 11, 1941
The Hon. JAMES ALEXANDER CALDER.....	Oct. 12, 1917	The Hon. WILLIAM FERDINAND ALPHONSE TURGEON.....	Oct. 8, 1941
The Hon. SYDNEY CHILTON MEWBURN.....	Oct. 12, 1917	The Rt. Hon. LOUIS STEPHEN ST. LAURENT ²	Dec. 10, 1941
The Hon. THOMAS ALEXANDER CERRAR.....	Oct. 12, 1917	The Rt. Hon. WINSTON LEONARD SPENCER CHURCHILL.....	Dec. 29, 1941
The Hon. FLEMING BLANCHARD McCURDY.....	July 13, 1920	The Hon. ALPHONSE FOURNIER ²	Oct. 7, 1942
The Hon. HENRY HERBERT STEVENS.....	Sept. 21, 1921	The Hon. ERNEST BERTRAND.....	Oct. 7, 1942
The Hon. JAMES HORACE KING.....	Feb. 3, 1922	The Hon. LEO RICHER LAFLECHE.....	Oct. 7, 1942
The Hon. EDWARD JAMES McMURRAY.....	Nov. 14, 1923	The Hon. BROOKE CLAXTON ²	Oct. 13, 1944
The Rt. Hon. CHARLES VINCENT MASSEY.....	Sept. 16, 1925	The Hon. ANDREW GEORGE LATTA McNAUGHTON.....	Nov. 2, 1944
The Hon. CHARLES AVERY DUNNING.....	Mar. 1, 1926	The Hon. JOSEPH ARTHUR JEAN.....	Apr. 18, 1945
The Hon. WILLIAM DAUM EULER.....	Sept. 25, 1926	The Hon. LIONEL CHEVRIER ²	Apr. 18, 1945
H.R.H. THE DUKE OF WINDSOR.....	Aug. 2, 1927	The Hon. PAUL JOSEPH JAMES MARTIN ²	Apr. 18, 1945
The Hon. CYRUS MACMILLAN.....	June 17, 1930	The Hon. DOUGLAS CHARLES ABBOTT ²	Apr. 18, 1945
The Hon. ARTHUR CHARLES HARDY.....	July 31, 1930	The Hon. JAMES JOSEPH MCCANN ²	Apr. 18, 1945
The Hon. HUGH ALEXANDER STEWART.....	Aug. 7, 1930	The Hon. DAVID LAURENCE MACLAREN.....	Apr. 18, 1945
The Hon. DONALD MATHESON SUTHERLAND.....	Aug. 7, 1930	The Hon. THOMAS VIEN.....	July 19, 1945
The Hon. THOMAS GEROW MURPHY.....	Aug. 7, 1930	The Hon. WISHART McLEA ROBERTSON ²	Sept. 4, 1945
The Hon. WILLIAM DUNCAN HERRIDGE.....	June 17, 1931	The Hon. MILTON FOWLER GREGG ²	Sept. 2, 1947
The Hon. ROBERT CHARLES MATTHEWS.....	Dec. 6, 1933	The Hon. ROBERT WELLINGTON MAYHEW ²	June 11, 1948
The Hon. GROTE STIRLING.....	Nov. 17, 1934	The Hon. LESTER BOWLES PEARSON ²	Sept. 10, 1948
The Hon. GEORGE REGINALD GEARY.....	Aug. 14, 1935	The Hon. STUART SINCLAIR GARSON ²	Nov. 15, 1948
The Hon. SAMUEL GOBEL.....	Aug. 14, 1935	The Hon. ROBERT HENRY WINTERS ²	Nov. 15, 1948
The Hon. LUCIEN HENRI GENDRON.....	Aug. 30, 1935	The Hon. FREDERICK GORDON BRADLEY ²	Apr. 1, 1949
The Hon. WILLIAM EARL ROWE.....	Aug. 30, 1935	The Hon. CHARLES JOST BURCHELL.....	Apr. 1, 1949
The Hon. ONESIME GAGNON.....	Aug. 30, 1935	The Hon. GASPARD FAUTEAUX.....	May 16, 1949
The Hon. CHARLES GAVAN POWER.....	Oct. 23, 1935	The Hon. HUGES LAPOINTE ²	Aug. 25, 1949
The Rt. Hon. JAMES LORIMER LESLEY.....	Oct. 23, 1935	The Hon. GABRIEL EDOUARD RINFRET.....	Aug. 25, 1949
The Hon. JOSEPH ENOIL MICHAUD.....	Oct. 23, 1935	The Hon. WALTER EDWARD HARRIS ²	Jan. 18, 1950
The Rt. Hon. CLARENCE DECATUR HOWE ²	Oct. 23, 1935	The Hon. GEORGE PRUDHAM ²	Dec. 13, 1950
The Rt. Hon. JAMES GARFIELD GARDINER ²	Nov. 4, 1935	The Hon. GEORGE BLACK.....	Aug. 3, 1951
The Hon. JAMES ANGUS MAC KINNON.....	Jan. 23, 1939	The Hon. FREDERIC E. BRONSON.....	Aug. 23, 1951
		VISCOUNT ALEXANDER OF TUNIS.....	Jan. 29, 1952
		The Hon. ALCIDE CÔTÉ.....	Feb. 13, 1952

¹ As in the case of Privy Councillors of the United Kingdom, members of Her Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in. ² Ranks as a member of the Cabinet.

³ Ranks as the Prime Minister of Canada.

5.—Duration and Sessions of Parliaments, 1936-52

NOTE.—Similar information for the 1st to the 12th Parliaments, covering the period from Confederation to 1917, will be found at p. 46 of the 1940 Year Book; and that for the 13th to 17th Parliaments at p. 53 of the 1945 edition.

Order of Parliament	Session	Date of Opening	Date of Prorogation	Days of Session	Sitting Days of House of Commons	Date of Election, Writs Returnable, Dissolution, and Length of Parliament ^{1,2}
18th Parliament.	1st	Feb. 6, 1936	June 23, 1936	139	91	Oct. 14, 1935 ³ Nov. 9, 1935 ⁴ Jan. 25, 1940 ⁵ 4 y., 2 m., 16 d.
	2nd	Jan. 14, 1937	Apr. 10, 1937	87	62	
	3rd	Jan. 27, 1938	July 1, 1938	156	102	
	4th	Jan. 12, 1939	June 3, 1939	143	103	
	5th	Sept. 7, 1939	Sept. 13, 1939	7	6	
	6th	Jan. 25, 1940	Jan. 25, 1940	1	1	
19th Parliament ⁶ .	1st	May 16, 1940	Nov. 5, 1940	174	61	Mar. 26, 1940 ³ Apr. 17, 1940 ⁴ Apr. 16, 1945 ⁵ 5 y.
	2nd	Nov. 7, 1940	Jan. 21, 1942	441	105	
	3rd	Jan. 22, 1942	Jan. 27, 1943	371	124	
	4th	Jan. 28, 1943	Jan. 26, 1944	364	120	
	5th	Jan. 27, 1944	Jan. 31, 1945	371	136	
	6th	Mar. 19, 1945	Apr. 16, 1945	29	19	
20th Parliament.	1st	Sept. 6, 1945	Dec. 18, 1945	104	76	June 11, 1945 ³ Aug. 9, 1945 ⁴ Apr. 30, 1949 ⁵ 3 y., 8 m., 22 d.
	2nd	Mar. 14, 1946	Aug. 31, 1946	171	118	
	3rd	Jan. 30, 1947	July 17, 1947	169	115	
	4th	Dec. 5, 1947	June 30, 1948	209	119	
	5th	Jan. 26, 1949	Apr. 30, 1949	95	59	
21st Parliament.	1st	Sept. 15, 1949	Dec. 10, 1949	87	64	June 27, 1949 ³ Aug. 25, 1949 ⁴
	2nd	Feb. 16, 1950	June 30, 1950	135	90	
	3rd	Aug. 29, 1950	Jan. 29, 1951	154	17	
	4th	Jan. 30, 1951	Oct. 9, 1951	253	105	
	5th	Oct. 9, 1951	Dec. 29, 1951	82	56	
	6th	Feb. 28, 1952	—	—	—	

¹ The ordinary legal limit of duration for each Parliament is five years. ² Duration of Parliament in years, months and days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive (B.N.A. Act, Sect. 50). ³ Date of general election. ⁴ Writs returnable. ⁵ Dissolution of Parliament. ⁶ During the war years Parliament was kept in almost continuous session. When prorogation took place it was followed immediately by a new session. During long adjournments provision was made whereby the Speaker could reconvene Parliament before the date previously set for reassembly.

Subsection 2.—The Legislature

The Legislative Branch of government, consisting of the Senate and House of Commons, is responsible for the enactment of all legislation. Bills may originate in either the Senate or the House subject to the provisions of Sect. 53 of the British North America Act, 1867, which restricts to the House of Commons the introduction of Bills for the appropriation of any part of the public revenue or the imposition of any tax or impost. Bills must pass both Houses and receive the Royal Assent before becoming law. In practice most Public Bills originate in the House of Commons, although there has been a marked increase recently in the introduction of Public Bills in the Senate. For some years past, all Private Bills have originated in the Senate.

The Senate.—From an original membership of 72 at Confederation, the Senate, through the addition of new provinces and the general growth of population, now has 102 members, the latest change in representation having been made on the admission of Newfoundland to Confederation in 1949. The growth of representation in the Senate is traced in the 1940 Year Book, pp. 47-49, and is summarized by provinces in Table 6.

6.—Representation in the Senate since Confederation

Province	1867	1870	1871	1873	1882	1887	1892	1903	1905	1915-1948	1949-1952
Ontario.....	24	24	24	24	24	24	24	24	24	24	24
Quebec.....	24	24	24	24	24	24	24	24	24	24	24
Atlantic Provinces.....	24	24	24	24	24	24	24	24	24	24	30
Nova Scotia.....	12	12	12	10	10	10	10	10	10	10	10
New Brunswick.....	12	12	12	10	10	10	10	10	10	10	10
Prince Edward Island.....	...	...	...	4	4	4	4	4	4	4	4
Newfoundland.....	...	...	...	...	...	...	...	...	...	...	6
Western Provinces.....	...	2	5	5	6	8	9	11	15	24	24
Manitoba.....	...	2	2	2	3	3	4	4	4	6	6
British Columbia.....	...	...	3	3	3	3	4	4	3	6	6
Saskatchewan.....	...	...	...	...	...	2	2	4	4	6	6
Alberta.....	...	...	...	...	...	...	...	...	4	6	6
Totals.....	72	74	77	77	78	80	81	83	87	96	102

7.—Members of the Senate, by Provinces, as at Mar. 31, 1952

Speaker.....	The Hon. ELIE BEAUREGARD
Clerk of the Senate and Clerk of Parliaments.....	LESLIE CLARE MOYER
Leader of the Government.....	The Hon. WISHART McLEA ROBERTSON
Leader of the Opposition.....	The Hon. JOHN THOMAS HAIG

(Ranked according to seniority, by provinces. All Senators are entitled to the designation "The Honourable".)

Province and Name of Senator	P.O. Address	Province and Name of Senator	P.O. Address
Newfoundland— (6 Senators)		New Brunswick—concluded	
BAIRD, ALEXANDER BOYD.....	St. John's	PIRIE, FREDERICK WILLIAM.....	Grand Falls
PETTON, RAY.....	St. John's	BURCHILL, GEORGE PERCIVAL.....	South Nelson
BURKE, VINCENT P.....	St. John's	EMMERSON, HENRY READ.....	Dorchester
QUINTON, HERMAN W.....	St. John's	DOONE, J. J. HAYES.....	Black's Harbour
PRATT, CALVERT C.....	St. John's		
BASHA, MICHAEL G.....	Curling	Quebec— (24 Senators—6 vacancies)	
Prince Edward Island— (4 Senators—1 vacancy)		RAYMOND, DONAT.....	Montreal
McINTYRE, JAMES PETER.....	Mount Stewart	HUGESSEN, ADRIAN KNATCH- BULL.....	Montreal
GRANT, THOMAS VINCENT, M.D.....	Montague	FAFARD, J. FERNAND.....	L'Islet
BARBOUR, GEORGE H.....	Charlottetown	HOWARD, CHARLES BENJAMIN.....	Sherbrooke
		BEAUREGARD, ELIE.....	Montreal
		DAVID, ATHANASE.....	Montreal
		HUSHION, WILLIAM JAMES.....	Westmount
		GOUIN, LÉON MERCIER.....	Montreal
		VIEN, THOMAS.....	Outremont
Nova Scotia— (10 Senators)		DUTREMBLAY, PAMPHILE REAL	Montreal
DENNIS, WILLIAM HENRY.....	Halifax	BOUCHARD, TÉLESOPHORE	
QUINN, FELIX PATRICK.....	Bedford	DAMIEN.....	St. Hyacinthe
DUFF, WILLIAM.....	Lunenburg	DAIGLE, ARMAND.....	Montreal
MACLENNAN, DONALD.....	Port Hawkesbury	VALLANCOURT, CYRILLE.....	Lévis
ROBERTSON, WISHART McLEA.....	Truro	NICOL, JACOB.....	Sherbrooke
KINLEY, JOHN JAMES.....	Lunenburg	DUPUIS, VINCENT.....	Longueuil
McDONALD, JOHN ALEXANDER.....	Halifax	DESSUREAULT, JEAN MARIE.....	Quebec
COMEAU, JOSEPH WILLIE.....	Comeauville	BOUFFARD, PAUL HENRI.....	Quebec
ISNOR, GORDON B.....	Halifax	GODBOUT, JOSEPH ADELARD.....	Frelighsburg
HAWKINS, CHARLES G.....	Milford Station		
New Brunswick— (10 Senators—4 vacancies)		Ontario— (24 Senators—4 vacancies)	
VENIOT, CLARENCE JOSEPH.....	Bathurst	HARDY, ARTHUR CHARLES.....	Brockville
McLEAN, ALEXANDER NEIL.....	Saint John	McGUIRE, WILLIAM HENRY.....	Toronto
		LACASSE, GUSTAVE.....	Tecumseh

7.—Members of the Senate, by Provinces, as at Mar. 31, 1952—concluded

Province and Name of Senator	P.O. Address	Province and Name of Senator	P.O. Address
Ontario—concluded		Saskatchewan—	
WILSON, CAIRINE REAY.....	Ottawa	(6 Senators)	
FALLIS, IVA CAMPBELL.....	Peterborough	CALDER, JAMES ALEXANDER...	Regina
LAMBERT, NORMAN PLATT.....	Ottawa	MARCOTTE, ARTHUR.....	Ponteix
HAYDEN, SALTER ADRIAN.....	Toronto	HORNER, RALPH BYRON.....	Blaine Lake
PATERSON, NORMAN MCLEOD..	Fort William	ASELTINE, WALTER MORLEY...	Rosetown
DUFFUS, JOSEPH JAMES.....	Peterborough	STEVENSON, JOHN JAMES.....	Prince Albert
EULER, WILLIAM DAUM.....	Kitchener	WOOD, THOMAS H.....	Regina
DAVIES, WILLIAM RUPERT.....	Toronto		
CAMPBELL, GORDON PETER.....	Toronto		
TAYLOR, WILLIAM HORACE.....	Brantford		
BISHOP, CHARLES LAWRENCE..	Ottawa		
ROEBUCK, ARTHUR WENT-			
WORTH.....	Toronto	Alberta—	
HURTUBISE, JOSEPH RAOUL...	Sudbury	(6 Senators)	
FARQUHAR, THOMAS.....	Little Current	BUCHANAN, WILLIAM ASHBURY	Lethbridge
FOGO, JAMES GORDON.....	Ottawa	BLAIS, ARISTIDE.....	Edmonton
FRASER, WILLIAM ALEXANDER..	Trenton	GERSHAW, FRED WILLIAM.....	Medicine Hat
GOLDING, WILLIAM HENRY....	Seaforth	ROSS, GEORGE HENRY.....	Calgary
		MACKINNON, JAMES ANGUS...	Edmonton
		STAMBAUGH, J. WESLEY.....	Bruce
		British Columbia—	
		(6 Senators—1 vacancy)	
Manitoba—		KING, JAMES HORACE.....	Vancouver
(6 Senators—1 vacancy)		FARRIS, JOHN WALLACE DE	
HAIG, JOHN THOMAS.....	Winnipeg	BEQUE.....	Vancouver
BEAUBIEN, ARTHUR LUCIEN...	St. Jean Baptiste	TURGEON, JAMES GRAY.....	Vancouver
CHERRAR, THOMAS ALEXANDER.	Winnipeg	MCKEEN, STANLEY STEWART..	Vancouver
HOWDEN, JOHN POWER.....	Norwood Grove	REID, THOMAS.....	New Westminster
DAVIS, JOHN CASWELL.....	St. Boniface		

The House of Commons.—In Sect. 37 of the British North America Act of 1867 it was provided that "The House of Commons shall, subject to the provisions of this Act, consist of one hundred and eighty-one members, of whom eighty-two shall be elected for Ontario, sixty-five for Quebec, nineteen for Nova Scotia, and fifteen for New Brunswick". Further, under Sect. 51, it was enacted that, after the completion of the Census of 1871 and of each subsequent decennial census, the representation of the four provinces should be readjusted by such authority, in such manner, and from such time, as the Parliament of Canada provided, subject to and according to certain rules set out in the original Act.

The representation of the provinces in the Federal Parliament as at 1867 and the readjustments that took place with the admission of the newer provinces into Confederation and with each decennial census up to 1931, are outlined in the 1946 Year Book, pp. 57-59. The postponement of redistribution of parliamentary constituencies following the 1941 Census, together with the petition of both Houses of Parliament to the Imperial Parliament requesting the required amendment to Sect. 51 of the British North America Act, the wording of the new Section, and the passage of the Representation Act, 1947 (11 Geo. VI, c. 71), providing for an increase of membership from 245 to 255 effective at the following general election, are described in the Year Book 1951, p. 65.

Under the terms of a Bill, assented to on Feb. 18, 1949, and entitled "An Act to approve the Terms of Union of Newfoundland with Canada", provision was made for the Province of Newfoundland to be represented by seven members in the House of Commons. This increased the number of Members of Parliament to 262.

The number of representatives of each province elected at each of the 21 general elections since Confederation is given in Table 8.

8.—Representation in the House of Commons as at Federal General Elections, 1867-1949

Province or Territory	1867	1872	1874 1878	1882	1887 1891	1896 1900	1904	1908 1911	1917 1921	1925 1926 1930	1935 1940 1945	1949
Ontario.....	* 82	88	88	92	92	92	86	86	82	82	82	83
Quebec.....	65	65	65	65	65	65	65	65	65	65	65	73
Nova Scotia.....	19	21	21	21	21	20	18	18	16	14	12	13
New Brunswick.....	15	16	16	16	16	14	13	13	11	11	10	10
Manitoba.....	...	4	4	5	5	7	10	10	15	17	17	16
British Columbia.....	...	6	6	6	6	6	7	7	13	14	16	18
Prince Edward Island...	...	...	6	6	6	5	4	4	4	4	4	4
Saskatchewan.....	...	...	...	...	4	4	10	10	16	21	21	20
Alberta.....	...	...	...	...				7	12	16	17	17
Yukon-Mackenzie River	...	...	...	...	...	...	1	1	1	1	1	1
Newfoundland.....	...	...	...	...	...	...	...	...	...	...	...	7
Totals.....	181	200	206	211	215	213	214	221	235	245	245	262

The completion of the 1951 Census called for further readjustment of parliamentary representation and draft legislation for amending the British North America Acts, 1867-1951, with respect to the readjustment of representation in the House of Commons was under consideration by the Canadian Parliament in the spring of 1952. An outline of this legislation, if enacted by the time of going to press, will be given in an Appendix to this volume.

The Opposition.—The Opposition occupies an essential place in constitutions based on the British Parliamentary System. Like many other institutions such as that of the premiership, for instance, it takes its place with the unwritten customs, tested by time, that have been accepted and become firmly established.

The choice of the Canadian electorate not only determines who shall govern Canada but, by deciding which party receives the second largest number of seats

in the House of Commons, it designates which of the major parties becomes the Official Opposition. The function of the Leader of the Opposition is to offer intelligent and constructive criticism of the government of the day.

When criticism by the Opposition becomes sufficiently effective it can overthrow the existing government and the Leader of the Opposition might then, as a result of the ensuing election, become Prime Minister.

Although the position of Leader of the Opposition is not recognized in the British North America Act, it received statutory acknowledgment in Canada in 1927. The Senate and House of Commons Act of that year provided for an annual salary to be paid to the Leader of the Opposition in addition to his indemnity as a Member of the House. (See pp. 59-60.)

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952.

Speaker..... The Hon. W. ROSS MACDONALD

Clerk of the House..... LEON J. RAYMOND

Leader of the Opposition..... GEORGE A. DREW

NOTE.—This information, except the population of constituencies, has been supplied by the Chief Electoral Officer, Ottawa. Party affiliations are unofficial. The vote is summarized by provinces in Table 11, p. 61. The leaders of the political parties are indicated by asterisks(*). For Parliamentary Assistants see p. 47.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member ¹	Name of Member ¹	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
Newfoundland—² (7 members)							
Bonavista-Twillingate.....	43,912	24,411	11,209	9,744	Hon. F. G. BRADLEY	Ottawa.....	Lib.
Burin-Burgeo.....	41,395	21,870	13,691	12,590	C. W. CARTER.....	St. John's.....	Lib.
Grand Falls-White Bay.....	44,627	27,592	14,247	12,301	T. G. W. ASHBOURNE	Twillingate.....	Lib.
Humber-St. George's.....	41,143	23,683	13,461	11,930	W. R. KENT.....	Corner Brook...	Lib.
St. John's East.....	48,811	27,894	18,170	9,912	G. F. HIGGINS.....	St. John's.....	P.C.
St. John's West.....	49,788	29,531	20,291	10,344	W. J. BROWNE.....	St. John's.....	P.C.
Trinity-Conception..	52,143	27,458	14,121	10,929	L. T. STICK.....	Bay Roberts...	Lib.
P. E. Island— (4 members)							
Kings.....	19,415	11,078	9,626	5,079	T. J. KICKHAM.....	Souris.....	Lib.
Prince.....	34,490	19,189	17,140	8,007	J. W. MACNAUGHT..	Summerside.....	Lib.
Queens ³	41,142	25,505	14,627	10,657	W. C. S. McLURE...	Charlottetown..	P.C.
				10,652	J. L. DOUGLAS ⁴ ...	Charlottetown..	Lib.

¹ Successful candidate.

² Population figures based on the 1945 Census of Newfoundland.

³ Each elector could vote for two candidates.

⁴ Died Sept. 30, 1950, see Table 10 for by-election.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member ¹	Name of Member ¹	P.O. Address	Party Affiliation
No.	No.	No.	No.				
Nova Scotia—							
(13 members)							
Annapolis-Kings.....	46,612	30,736	26,497	13,202	A. A. ELDERKIN ² ...	Wolfville.....	Lib.
Antigonish-Guysborough.....	26,006	15,307	12,018	7,586	J. R. KIRK.....	Antigonish.....	Lib.
Cape Breton North and Victoria.....	37,656	22,727	16,748	9,461	M. MACLEAN.....	Sydney Mines.....	Lib.
Cape Breton South.....	77,637	44,508	33,374	15,057	C. GILLIS.....	Glace Bay.....	C.C.F.
Colechester-Hants.....	52,158	33,036	27,722	13,550	F. T. STANFIELD.....	Truro.....	P.C.
Cumberland.....	39,476	24,275	19,862	9,850	P. C. BLACK.....	Amherst.....	P.C.
Digby-Yarmouth.....	41,887	26,112	20,716	11,084	T. A. MURRAY KIRK.....	Yarmouth.....	Lib.
Halifax ³	122,656	90,803	114,201	33,401	G. B. ISNOR ⁴	Halifax.....	Lib.
Inverness-Richmond.....	34,864	20,843	15,775	31,627	J. H. DICKET.....	Halifax.....	Lib.
Lunenburg.....	32,942	22,050	17,109	10,584	W. F. CARROLL.....	Margaree Forks.....	Lib.
Pictou.....	40,789	27,152	21,683	8,829	Hon. R. H. WINTERS.....	Ottawa.....	Lib.
Queens-Shelburne.....	25,279	16,036	13,223	10,930	H. B. McCULLOCH.....	New Glasgow.....	Lib.
				6,501	D. SMITH.....	Liverpool.....	Lib.
New Brunswick—							
(10 members)							
Charlotte.....	22,728	15,361	12,441	6,197	A. W. STUART.....	St. Andrews.....	Lib.
Gloucester.....	49,913	26,819	21,362	14,759	C. T. RICHARD ⁵	Bathurst.....	Lib.
Kent.....	25,817	13,670	11,854	5,754	A. D. LÉGER.....	Grandiduc.....	Lib.
Northumberland.....	38,485	21,356	17,869	9,840	G. R. McWILLIAM.....	Newcastle.....	Lib.
Restigouche-Madawaska.....	61,251	33,520	24,587	15,919	B. MICHAUD ⁶	Campbellton.....	Lib.
Royal.....	34,348	22,137	18,435	9,501	A. J. BROOKS.....	Sussex.....	P.C.
Saint John-Albert.....	77,248	54,124	38,691	18,691	D. A. RILEY.....	Saint John.....	P.C.
Victoria-Carleton.....	38,382	23,025	19,122	10,429	H. H. HATFIELD ⁷	Hartland.....	P.C.
Westmorland.....	64,486	46,352	36,417	20,649	E. W. GEORGE.....	Upper Sackville.....	Lib.
York-Sunbury.....	44,743	30,359	25,099	12,158	Hon. M. F. GREGG.....	Ottawa.....	Lib.
Quebec—							
(73 members)							
Argenteuil-Deux-Montagnes.....	39,416	25,359	20,857	10,500	P. VALOIS.....	Lachute.....	Lib.
Beauce.....	47,827	26,204	22,286	10,267	R. POULIN.....	St.-Martin-de-Beauce.....	Ind.
Beauharnois.....	35,487	24,463	16,900	11,631	R. CAUCHON.....	Valleyfield.....	Lib.
Bellechasse.....	29,471	15,706	12,630	7,395	L.-P. PICARD.....	Quebec.....	Lib.
Berthier-Maskinongé.....	39,559	23,956	20,210	11,770	J. LANGLOIS.....	St. Justin.....	Lib.
Bonaventure.....	39,196	20,425	17,123	9,802	B. ARSENAULT.....	Quebec.....	Lib.
Brome-Missisquoi.....	33,927	21,552	15,926	8,831	H.-A. GOSSELIN ⁸	Farnham.....	Lib.
Chambly-Rouville.....	45,698	45,348	33,955	20,946	R. PINARD.....	Montreal.....	Lib.
Champlain.....	42,666	25,945	21,266	11,663	J.-I. ROCHFERT.....	Cap-de-la-Madeleine.....	Lib.
Chapleau.....	43,570	26,593	19,593	11,304	D. GOURD.....	Amos.....	Lib.
Charlevoix.....	38,231	21,111	16,890	9,543	A. MALTAIS.....	Sillery.....	Lib.
Châteauguay-Huntingdon-Laprairie.....	37,175	22,105	17,191	9,986	D.-E. BLACK.....	Aubrey.....	Lib.
Chicoutimi.....	41,314	25,920	21,894	10,252	P.-E. GAGNON.....	Bagotville.....	Ind.
Compton-Frontenac.....	40,368	21,873	17,760	10,764	J.-A. BLANCHETTE.....	Chartierville.....	Lib.
Dorchester.....	32,882	17,690	14,861	6,983	L.-D. TREMBLAY.....	St. Malachie.....	Lib.
Drummond-Arthabaska.....	54,128	36,844	23,192	16,899	A. CLOUTIER.....	Drummondville.....	Lib.
Gaspé.....	48,628	26,515	22,368	12,567	J.-G. L. LANGLOIS.....	Quebec.....	Lib.
Gatineau.....	32,898	19,381	15,118	9,865	L.-J. RAYMOND ⁹	Maniwaki.....	Lib.
Hull.....	50,024	34,923	28,515	18,446	Hon. A. FOURNIER.....	Ottawa.....	Lib.
Iles-de-la-Madeleine.....	8,940	4,690	4,394	2,203	C.-A.-D. CANNON.....	Quebec.....	Lib.
Joliette-L'Assomption-Montcalm.....	63,462	40,367	32,936	18,755	G.-E. LAPALME ¹⁰	Joliette.....	Lib.
Kamouraska.....	32,741	17,756	11,015	7,792	E. MARQUIS ¹¹	Quebec.....	Lib.

¹ Successful candidate.

² Election declared void Feb. 23, 1950, see Table 10 for by-election, p. 59.

³ Each elector could vote for two candidates.

⁴ Appointed to the Senate, May 2, 1950, see Table 10 for by-election.

⁵ Resigned Mar. 5, 1952, appointed Judge to the Supreme Court of New Brunswick. Seat vacant at Mar. 31, 1952.

⁶ Died Jan. 3, 1952. Seat vacant at Mar. 31, 1952.

⁷ Died Jan. 27, 1952. Seat vacant at Mar. 31, 1952.

⁸ Appointed Clerk of the House of Commons Aug. 16, 1949, see Table 10 for by-election.

⁹ Resigned June 23, 1950, to become Leader of the Quebec Provincial Liberal Party, see Table 10 for by-election.

¹⁰ Appointed to Superior Court at Quebec, Aug. 24, 1949, see Table 10 for by-election.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member ¹	Name of Member ¹	P.O. Address	Party Affiliation
Quebec—concluded	No.	No.	No.	No.			
Labelle.....	39,083	21,969	18,117	8,701	H. COURTEMANCHE..	Montreal.....	P.C.
Lac-Saint-Jean.....	29,131	15,017	13,173	7,084	A. GAUTHIER.....	St. Joseph d'Alma.....	Lib.
Lapointe.....	37,567	25,238	20,920	10,275	J. GAUTHIER.....	Jonquière.....	Lib.
Lévis.....	35,951	23,324	19,469	11,752	M. BOURGET.....	Lauson.....	Lib.
Lotbinière.....	35,452	18,210	15,764	8,849	Hon. H. LAPOINTE..	Ottawa.....	Lib.
Matapédia-Matane.....	53,054	28,129	23,112	11,546	A.-P. CÔTÉ.....	Ottawa.....	Lib.
Mégantic.....	50,910	27,288	22,897	13,273	J. LAPONTAINE.....	Theftford Mines.	Lib.
Montmagny-L'Islet.....	33,394	19,494	13,299	10,004	J. LESAGE.....	Quebec.....	Lib.
Nicolet-Yamaska.....	43,892	24,462	20,073	10,208	M. BOISVERT.....	Quebec.....	Lib.
Pontiac.....							
Témiscamingue.....	37,085	22,224	18,067	7,817	J. H. PROUDFOOT....	Fort Coulonge..	Lib.
Portneuf.....	39,769	23,545	18,689	10,932	P. GAUTHIER.....	Deschambault..	Lib.
Quebec East.....	67,559	45,311	35,389	25,832	Rt. Hon. L.-S. St. LAURENT ²	Ottawa.....	Lib.
Quebec South.....	43,725	34,358	26,568	19,383	Hon. C. G. POWER....	Quebec.....	Lib.
Quebec West.....	49,577	30,492	23,047	12,391	C. PARENT.....	Quebec.....	Lib.
Quebec - Montmorency.....	47,844	33,369	26,033	16,829	W. LA CROIX.....	Quebec.....	Lib.
Richelieu-Verchères.....	34,443	24,080	19,365	12,795	G. COUROUYER.....	Sorel.....	Lib.
Richmond-Wolfe.....	46,437	26,181	20,230	13,621	E.-O. GINGRAS.....	Marbleton.....	Lib.
Rimouski.....	51,360	30,014	24,375	11,708	G. BELZILE ³	Rimouski.....	Lib.
Roberval.....	35,175	19,127	16,375	8,103	J.-A. DION.....	Roberval.....	Lib.
St. Hyacinthe-Bagot	47,899	30,491	16,953	14,702	J. FONTAINE.....	St. Hyacinthe..	Lib.
St. Jean - Iberville - Napierville.....	37,360	25,241	18,323	12,823	A. CÔTÉ.....	St. Jean.....	Lib.
St. Maurice-Laféche	51,804	35,326	28,123	13,898	J.-A. RICHARD.....	Shawinigan Falls	Lib.
Saguenay.....	28,856	16,262	12,782	6,113	L. BRISSON.....	La Malbaie.....	Lib.
Shefford.....	42,844	27,845	22,074	12,993	M. BOVIN.....	Granby.....	Lib.
Sherbrooke.....	42,466	31,770	24,813	12,116	M. GINGUES.....	Sherbrooke.....	Lib.
Stanstead.....	31,992	21,725	16,902	7,736	L.-E. ROBERGE.....	Rock Island.....	Lib.
Témiscouata.....	49,965	26,621	16,799	11,648	J.-F. POULIOT.....	Rivière-du-Loup	Lib.
Terrebonne.....	47,454	35,741	27,702	18,304	L. BEERTRAND.....	Ste. Thérèse.....	Lib.
Three Rivers.....	52,061	31,633	25,883	10,015	L. BALCER.....	Three Rivers.....	P.C.
Vaudreuil-Soulanges.	22,498	14,887	11,404	7,622	L.-R. BEAUDOIN.....	Hudson.....	Lib.
Villeneuve.....	49,235	33,127	26,128	13,597	A. DUMAS.....	Malartic.....	Lib.
Island of Montreal and Ile Jesus—							
Cartier.....	63,167	37,182	23,213	11,993	M. HART ⁴	Montreal.....	Lib.
Hochelaga.....	66,368	40,507	26,622	17,633	R. EUDES.....	Montreal.....	Lib.
Jacques-Cartier.....	41,759	34,734	25,359	15,298	E. MARIER ⁴	Pointe Claire..	Lib.
Lafontaine.....	57,515	36,896	25,162	12,883	J.-G. RATELLE.....	Montreal.....	Lib.
Laurier.....	54,142	35,316	21,348	15,578	Hon. E. BERTRAND ⁵	Outremont.....	Lib.
Laval.....	50,302	40,464	28,564	18,202	L. DEMERS.....	St. Laurent.....	Lib.
Maisonneuve-Rosemont.....	65,714	45,525	30,941	20,512	S. FOURNIER.....	Montreal.....	Lib.
Mercier.....	50,735	39,930	26,735	17,041	Hon. J. JEAN ⁶	Point - aux Trembles	Lib.
Mount Royal.....	48,963	50,540	34,521	21,654	A. A. MACNAUGHTON	Montreal.....	Lib.
Notre - Dame - de-Grace.....	57,485	43,291	31,445	19,469	F. P. WHITMAN.....	Montreal.....	Lib.
Outremont-St. Jean	54,492	35,555	21,615	16,215	Hon. G. E. RINFRET ⁷	Ottawa.....	Lib.
Papineau.....	45,958	37,182	26,627	12,611	C. HOUE.....	Montreal.....	Ind.
St. Ann.....	48,929	29,204	20,456	14,528	T. P. HEALY.....	Montreal.....	Lib.
St. Antoine-Westmount.....	61,291	46,570	33,138	21,399	Hon. D. C. ABBOTT..	Ottawa.....	Lib.
St. Denis.....	68,398	45,678	29,555	18,866	A. DENIS.....	Montreal.....	Lib.
St. Henry.....	59,679	37,583	25,504	16,313	J.-A. BONNIER.....	Montreal.....	Lib.
St. James.....	68,082	49,862	29,274	18,705	R. BEAUDRY.....	Montreal.....	Lib.
St. Lawrence - St. George.....	49,015	37,545	22,445	15,104	Hon. B. CLAXTON....	Ottawa.....	Lib.
St. Mary.....	56,109	35,657	22,042	13,773	Hon. GASPARD FAUTEUX ⁸	Montreal.....	Lib.
Verdun-La Salle...	70,328	50,789	36,186	24,903	P.-E. CÔTÉ.....	Verdun.....	Lib.

¹ Successful candidate. ² Died July 25, 1950, see Table 10 for by-election. ³ Died Mar. 15, 1950, see Table 10 for by-election. ⁴ Appointed to Superior Court at Montreal, Aug. 21, 1949, see Table 10 for by-election. ⁵ Appointed to Court of King's Bench at Montreal, Aug. 24, 1949, see Table 10 for by-election. ⁶ Appointed to Superior Court at Montreal, Aug. 24, 1949, see Table 10 for by-election. ⁷ Resigned, appointed Puisne Judge of the Court of Queen's Bench at Quebec, Feb. 13, 1952. ⁸ Resigned Aug. 23, 1950, appointed Lieutenant-Governor of Quebec, see Table 10 for by-election.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member ¹	Name of Member ¹	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
Ontario—							
(83 members)							
Algoma East.....	27,182	16,250	11,376	6,184	Hon. L. B. PEARSON	Ottawa.....	Lib.
Algoma West.....	40,777	27,028	20,094	10,127	G. E. NIXON	Sault Ste. Marie	Lib.
Brantford.....	40,071	30,467	23,651	12,565	Hon. W. R. MACDONALD	Brantford.....	Lib.
Brant-Wentworth...	28,138	20,844	15,782	6,693	J. A. CHARLTON...	Paris.....	P.C.
Bruce.....	29,253	18,321	15,084	7,517	D. B. BLUE	Ripley.....	Lib.
Carleton.....	53,568	42,294	34,550	18,141	G. A. DREW*	Ottawa.....	P.C.
Cochrane.....	33,197	18,632	13,612	6,352	J. A. BRADETTE	Cochrane.....	Lib.
Dufferin-Simcoe....	28,940	20,052	13,483	7,639	Hon. W. E. ROWE	Newton	P.C.
Durham.....	25,215	18,155	14,911	6,907	J. M. JAMES.....	Robinson	Lib.
Elgin.....	46,150	32,291	21,314	10,265	C. D. COYLE	Bowmanville....	Lib.
Essex East.....	53,457	41,393	32,086	16,709	Hon. P. MARTIN	Straffordville....	P.C.
Essex South.....	37,753	25,455	19,713	10,427	S. M. CLARK	Ottawa.....	Lib.
Essex West.....	82,146	53,986	36,007	15,620	D. F. BROWN	Harrow.....	Lib.
Fort William.....	40,578	26,739	21,046	9,569	D. McIVOR	Windsor.....	Lib.
Frontenac-Addington	27,496	19,320	15,096	7,724	W. R. AYLESWORTH	Fort William....	Lib.
Glengarry.....	18,732	10,586	8,748	4,809	W. J. MAJOR	Cataract.....	P.C.
Grenville-Dundas...	32,199	21,244	14,156	8,450	A. C. CASSELMAN	Green Valley....	Lib.
Grey-Bruce.....	34,830	22,691	17,810	10,528	C. E. BENNETT	Prescott.....	P.C.
Grey North.....	34,757	23,711	18,982	9,949	Hon. W. E. HARRIS	Ottawa.....	Lib.
Haldimand.....	21,854	14,401	11,621	5,432	A. E. CATHERWOOD	Meaford.....	Lib.
Halton.....	28,515	23,953	19,626	9,546	H. CLEAVER	Hagersville.....	P.C.
Hamilton East.....	68,779	48,666	35,707	14,035	T. H. ROSS	Burlington.....	Lib.
Hamilton West.....	59,358	40,982	28,645	12,324	Hon. C. GIBSON ²	Hamilton.....	Lib.
Hastings.....						Ottawa.....	Lib.
Peterborough.....	26,894	15,693	12,065	6,578	G. S. WHITE.....	Madoc.....	P.C.
Hastings South.....	43,580	31,109	25,489	13,099	F. S. FOLLWELL	Bellevue.....	Lib.
Huron North.....	25,524	17,074	14,046	6,986	L. E. CARDIFF	Brussels.....	P.C.
Huron-Perth.....	25,636	17,241	14,355	7,000	A. Y. MCLENNAN	Seaford.....	Lib.
Kenora-Rainy River	47,743	27,784	20,381	11,297	W. M. BENEDICKSON	Kenora.....	Lib.-Lab.
Kent.....	53,474	35,920	28,610	14,903	B. HUFFMAN	Blenheim.....	Lib.
Kingston City.....	83,306	23,787	18,877	10,045	W. J. HENDERSON	Kingston.....	Lib.
Lambton-Kent.....	34,909	22,799	18,014	9,674	H. A. MACKENZIE	Watford.....	Lib.
Lambton West.....	35,762	28,578	20,931	9,730	J. W. MURPHY	Camlachie.....	P.C.
Lanark.....	33,143	22,598	18,393	10,921	W. G. BLAIR	Perth.....	Lib.
Leeds.....	36,042	24,243	20,225	10,080	G. T. FULFORD	Brockville.....	Lib.
Lincoln.....	65,066	49,952	38,395	17,407	H. P. CAVERS	St. Catharines...	Lib.
London.....	64,833	50,495	36,295	16,427	A. JEFFERY	London.....	Lib.
Middlesex East.....	37,362	30,041	21,568	9,258	H. O. WHITE	Glanworth.....	P.C.
Middlesex West.....	24,871	16,529	13,290	7,938	R. McCUBBIN	Strathroy.....	Lib.
Nipissing.....	47,042	28,104	21,838	11,061	J. E. GARLAND	North Bay.....	Lib.
Norfolk.....	35,611	23,307	17,743	9,280	R. E. ANDERSON	Waterford.....	Lib.
Northumberland...	30,786	21,210	18,019	9,374	F. G. ROBERTSON	Cobourg.....	Lib.
Ontario.....	57,425	42,198	32,813	13,412	W. C. THOMSON ³	Pickering.....	Lib.
Ottawa East.....	54,527	37,733	30,223	20,895	J. T. RICHARD	Ottawa.....	Lib.
Ottawa West.....	76,607	52,630	42,517	24,295	G. J. McLLRAITH	Ottawa.....	Lib.
Oxford.....	50,974	34,524	26,281	12,581	A. C. MURRAY	Woodstock.....	Lib.
Parry Sound.....							
Muskoka.....	51,052	31,674	24,182	11,636	W. K. McDONALD...	Sundridge.....	Lib.
Peel.....	31,539	28,993	21,576	10,570	G. GRAYDON	Brampton.....	P.C.
Perth.....	42,276	29,022	22,421	10,901	J. N. CORRY	Atwood.....	Lib.
Peterborough West...	40,240	31,475	24,686	10,981	G. K. FRASER	Lakefield.....	P.C.
Port Arthur.....	50,833	34,716	25,065	12,646	Rt. Hon. C. D. HOWE	Ottawa.....	Lib.
Prescott.....	25,261	13,883	11,569	5,380	R. BRUNEAU	Hawkesbury....	Lib.
Prince Edward- Lennox.....	28,134	19,183	14,362	7,435	G. J. TUSTIN	Napanee.....	P.C.
Renfrew North.....	29,876	20,592	16,623	8,358	R. M. WARREN	Eganville.....	Lib.
Renfrew South.....	26,874	17,907	14,942	7,909	Hon. J. J. McCANN	Ottawa.....	Lib.
Russell.....	35,266	25,699	20,366	12,635	J. O. GOUR	Casselman.....	Lib.
Simcoe East.....	41,892	26,410	20,675	10,030	W. A. ROBINSON	Midland.....	Lib.
Simcoe North.....	28,573	20,634	15,408	7,658	J. H. FERGUSON...	Collingwood....	P.C.

¹ Successful candidate.

² Appointed to the Supreme Court of Ontario, Jan. 18, 1950, see Table 10 for by-election.

³ Resigned Oct. 9, 1951, to become Leader of the Ontario Provincial Liberal Party. Seat vacant at Mar. 31, 1952.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member ¹	Name of Member ¹	P.O. Address	Party Affiliation
No.	No.	No.	No.	No.			
Ontario—concluded							
Stormont.....	40,905	26,377	21,136	12,639	HON. L. CHEVREUR.....	Ottawa.....	Lib.
Sudbury.....	68,544	46,469	35,779	15,636	J. L. GAUTHIER.....	Sudbury.....	Lib.
Timiskaming.....	50,153	26,678	21,209	8,528	W. LITTLE.....	Kirkland Lake.....	Lib.
Timmins.....	47,928	24,961	18,868	7,949	K. A. EYRE.....	Timmins.....	Lib.
Victoria.....	40,922	27,753	21,934	11,061	C. W. HODGSON.....	Haliburton.....	P.C.
Waterloo North.....	60,039	46,280	32,327	17,715	L. O. BRETHAUP ²	Chatham.....	Lib.
Waterloo South.....	38,681	29,179	22,781	8,740	K. HOMUTH ¹	Preston.....	P.C.
Welland.....	93,836	68,304	50,736	23,734	HON. H. MITCHELL ¹	Ottawa.....	Lib.
Wellington North.....	23,605	15,405	12,648	6,057	A. DARROCH.....	Clifford.....	Lib.
Wellington South.....	38,441	27,415	21,990	10,344	H. A. HOSKING.....	Guelph.....	Lib.
Wentworth.....	67,070	60,988	43,470	16,443	F. E. LENNARD.....	Dundas.....	P.C.
York East.....	79,567	80,689	57,732	22,364	R. H. MCGREGOR.....	Toronto.....	P.C.
York North.....	57,269	53,823	39,486	18,933	J. E. SMITH.....	Richmond Hill.....	Lib.
York South.....	72,427	59,110	41,852	15,293	J. W. NOSEWORTHY.....	Toronto.....	C.C.F.
York West.....	74,829	67,470	50,801	19,184	R. ADAMSON.....	Port Credit.....	P.C.
<i>City of Toronto—</i>							
Broadview.....	59,454	41,731	28,080	10,507	T. L. CHURCH.....	Toronto.....	P.C.
Danforth.....	44,212	31,991	23,774	9,960	J. H. HARRIS.....	Toronto.....	P.C.
Davenport.....	58,685	42,219	29,495	11,431	P. T. HELLYER.....	Toronto.....	Lib.
Eglinton.....	72,953	53,310	40,888	19,853	D. M. FLEMING.....	Toronto.....	P.C.
Greenwood.....	58,346	40,806	29,759	10,454	J. E. McMILLIN ³	Toronto.....	P.C.
High Park.....	55,656	41,604	30,962	12,216	A. J. P. CAMERON.....	Toronto.....	Lib.
Parkdale.....	54,123	41,239	29,540	12,876	J. HUNTER.....	Toronto.....	Lib.
Rosedale.....	53,404	40,395	27,533	10,835	C. HENRY.....	Toronto.....	Lib.
St. Paul's.....	62,050	52,273	34,063	14,000	J. H. ROONEY.....	Toronto.....	Lib.
Spadina.....	86,431	59,123	39,768	23,652	D. A. CROLL.....	Toronto.....	Lib.
Trinity.....	62,143	41,338	30,340	10,389	L. CONACHER.....	Toronto.....	Lib.
Manitoba—							
(16 members)							
Brandon.....	41,725	27,489	20,519	11,263	J. E. MATTHEWS ⁷	Brandon.....	Lib.
Churchill.....	39,042	20,736	15,110	6,847	G. D. WEAVER.....	Flin Flon.....	Lib.
Dauphin.....	43,585	22,917	17,698	7,896	W. J. WARD.....	Dauphin.....	Lib.
Lisgar.....	46,833	24,209	16,464	9,190	H. W. WINKLER.....	Morden.....	Lib.
Marquette.....	40,165	22,517	17,222	10,144	HON. S. S. GARSON.....	Ottawa.....	Lib.
Norquay.....	42,445	20,501	14,126	8,430	R. J. WOOD.....	Teulon.....	Lib.
Portage-Neepawa.....	43,286	24,592	18,400	9,192	W. G. WEIR.....	Carman.....	Lib.
Provencher.....	38,169	17,057	10,940	6,834	R. JUTRAS.....	Letellier.....	Lib.
St. Boniface.....	37,686	26,306	18,993	10,766	F. VIAU.....	St. Boniface.....	Lib.
Selkirk.....	45,765	30,248	21,754	7,819	W. BRYCE.....	Selkirk.....	C.C.F.
Souris.....	27,240	16,061	12,757	6,108	J. A. ROSS.....	Melita.....	P.C.
Springfield.....	44,918	25,514	17,442	8,253	J. S. SINNOTT.....	St. Ouens.....	Lib.
Winnipeg North.....	66,239	45,114	32,175	12,432	A. STEWART.....	Winnipeg.....	C.C.F.
Winnipeg North Centre.....	64,210	44,078	28,977	15,389	S. H. KNOWLES.....	Winnipeg.....	C.C.F.
Winnipeg South.....	54,734	45,163	34,230	16,235	L. A. MUTCH.....	Winnipeg.....	Lib.
Winnipeg South Centre.....	53,702	39,390	27,272	14,747	R. MAYBANK ⁸	Fort Garry.....	Lib.
Saskatchewan—							
(20 members)							
Assiniboia.....	44,355	22,042	18,511	8,442	H. R. ARGUE.....	Kayville.....	C.C.F.
Humboldt.....	48,066	22,389	16,546	8,123	J. I. HETLAND.....	Naicam.....	Lib.
Kindersley.....	41,068	19,980	16,775	7,872	F. H. LARSON.....	Madison.....	Lib.
Lake Centre.....	42,993	21,471	18,273	8,845	J. G. DIFENBAKER.....	Prince Albert.....	P.C.
Mackenzie.....	45,797	21,572	16,525	7,564	G. M. FERRIE.....	Invermay.....	Lib.
Maple Creek.....	43,414	21,284	17,673	8,217	I. W. STUDER.....	Lac Pelletier.....	Lib.
Meadow Lake.....	41,458	16,867	12,957	7,078	J. H. HARRISON.....	Medstead.....	Lib.
Melfort.....	46,438	23,619	16,620	7,208	P. E. WRIGHT.....	Tisdale.....	C.C.F.
Melville.....	42,687	22,221	19,092	11,120	Rt. Hon. J. G. GARDINER.....	Ottawa.....	Lib.
Moose Jaw.....	42,439	26,302	20,911	10,026	W. R. THATCHER.....	Moose Jaw.....	C.C.F.

¹ Successful candidate. ² Resigned Jan. 24, 1952. Appointed Lieutenant-Governor of Ontario. ³ Died Mar. 19, 1951, see Table 10 for by-election. ⁴ Died Aug. 1, 1950, see Table 10 for by-election. ⁵ Died Feb. 6, 1950, see Table 10 for by-election. ⁶ Died Aug. 21, 1949, see Table 10 for by-election. ⁷ Died Nov. 24, 1950, see Table 10 for by-election. ⁸ Resigned Apr. 30, 1951, see Table 10 for by-election.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952—concluded.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member ¹	Name of Member ¹	P.O. Address	Party Affiliation
Saskatchewan—concluded	No.	No.	No.	No.			
Moose Mountain....	41,414	24,116	20,170	9,277	J. J. SMITH.....	Storthoaks....	Lib.
Prince Albert.....	46,969	23,797	18,614	8,916	F. H. HELME.....	Prince Albert..	Lib.
Qu'Appelle.....	42,706	23,430	20,270	9,017	A. E. DEWAR.....	Indian Head....	Lib.
Regina City.....	58,245	41,445	33,647	14,356	E. A. MCCUSKER..	Regina.....	Lib.
Rosetown-Biggart..	40,964	20,390	18,802	8,793	M. J. COLDWELL ² .	Ottawa.....	C.C.F.
Rosthern.....	42,809	18,623	12,003	7,398	W. A. BOUCHER....	Hoev.....	Lib.
Saskatoon.....	47,609	36,171	27,844	11,749	R. R. KNIGHT.....	Saskatoon.....	C.C.F.
Swift Current.....	42,601	20,492	16,218	7,595	H. B. WHITESIDE..	Sceptre.....	Lib.
The Battlefords....	44,382	21,565	16,784	8,034	A. J. BATER.....	Baljenie.....	Lib.
Yorkton.....	49,578	25,108	19,236	8,706	A. C. STEWART....	Yorkton.....	Lib.
Alberta—(17 members)							
Acadia.....	26,308	13,409	10,142	5,897	V. QUELCH.....	Morrin.....	S.C.
Athabaska.....	52,689	24,703	16,794	7,566 ¹	J. M. DECHENE....	Bonnyville....	Lib.
Battle River.....	40,455	20,547	14,124	7,708	R. FAIR.....	Vermilion.....	S.C.
Bow River.....	45,369	26,854	18,241	8,537	C. E. JOHNSTON..	Calgary.....	S.C.
Calgary East.....	47,727	39,296	27,133	9,641	D. S. HARKNESS..	Calgary.....	P.C.
Calgary West.....	43,744	38,231	27,054	11,457	A. L. SMITH ²	Calgary.....	P.C.
Camrose.....	43,104	22,420	15,812	7,364	H. H. W. BEYERSTEIN	Camrose.....	S.C.
Edmonton East.....	53,766	47,473	30,770	10,964	A. F. MACDONALD..	Edmonton.....	Lib.
Edmonton West....	48,300	46,165	31,416	14,333	G. PRUDHAM.....	Edmonton.....	Lib.
Jasper-Edson.....	58,947	30,183	20,182	7,288	J. W. WELBOURN..	Edmonton.....	Lib.
Lethbridge.....	47,636	27,134	19,079	8,880	J. H. BLACKMORE..	Cardston.....	S.C.
Macleod.....	43,059	23,330	16,648	7,411	E. G. HANSEEL....	Vulcan.....	S.C.
Medicine Hat.....	41,673	25,063	18,619	10,086	W. D. WYLIE.....	Medicine Hat..	S.C.
Peace River.....	52,427	28,550	20,121	7,727	S. E. LOW ³	Ottawa.....	S.C.
Red Deer.....	46,903	28,399	19,482	10,549	F. D. SHAW.....	Innisfail.....	S.C.
Vegreville.....	48,546	21,045	16,096	8,859	J. DECORE.....	Vegreville.....	Lib.
Wetaskiwin.....	55,516	29,426	19,509	6,774	R. THOMAS.....	Mirror.....	S.C.
British Columbia—(18 members)							
Burnaby-Richmond..	53,587	51,125	33,248	12,848	T. H. GOODE.....	Burnaby.....	Lib.
Cariboo.....	23,875	19,054	13,298	7,330	G. M. MURRAY....	Fort St. John..	Lib.
Coast-Capilano....	37,614	37,431	26,432	15,294	J. SINCLAIR.....	Hollyburn.....	Lib.
Comox-Alberni....	37,592	29,649	19,322	11,397	J. L. GIBSON.....	Vancouver.....	Ind.
Fraser Valley.....	40,533	33,341	22,854	12,587	G. CRUICKSHANK..	Clayburn.....	Lib.
Kamloops.....	36,936	26,035	19,295	7,682	E. D. FULTON.....	Kamloops.....	P.C.
Kootenay East.....	25,559	17,842	13,822	5,546	J. BYRNE.....	Kimberley.....	Lib.
Kootenay West.....	40,088	24,412	18,249	9,794	H. W. HERRIDGE..	Nakusp.....	C.C.F.
Nanaimo.....	57,689	50,620	36,689	17,507	G. R. PEARKES....	Victoria.....	P.C.
New Westminster..	48,999	46,107	33,027	13,904	T. REID ³	New Westminster	Lib.
Skeena.....	29,612	15,167	10,107	5,847	E. T. APPLEWHITE.	Prince Rupert.	Lib.
Vancouver-Burrard.	56,736	46,722	30,671	10,967	J. L. MACDOUGALL.	Vancouver.....	Lib.
Vancouver Centre..	57,656	39,201	24,509	10,299	R. O. CAMPNEY....	Vancouver.....	Lib.
Vancouver East....	58,238	50,146	30,238	14,056	A. MACINNIS.....	Vancouver.....	C.C.F.
Vancouver-Quadra..	55,944	49,439	33,530	16,661	H. C. GREEN.....	Vancouver.....	P.C.
Vancouver South....	47,642	48,398	33,212	13,082	A. LAING.....	Vancouver.....	Lib.
Victoria.....	57,687	47,255	34,760	19,324	Hon. W. R. MAYHEW	Ottawa.....	Lib.
Yale.....	51,874	41,835	31,522	13,298	O. L. JONES.....	Kelowna.....	C.C.F.
Yukon and Part of Northwest Territories—(1 member)							
Yukon-Mackenzie River.....	12,117	9,064	6,823	3,284	J. A. SIMMONS.....	Whitehorse....	Lib.

¹ Successful candidate. ² Resigned July 5, 1951, see Table 10 for by-election.

to Senate Sept. 7, 1949, see Table 10 for by-election.

³ Appointed

10.—By-elections from the Date of the General Election, June 27, 1949, to Mar. 31, 1952

Province and Electoral District	Date of By-election	Voters on List	Votes Polled by Member	Total Votes Polled	Name of New Member	P.O. Address	Party Affiliation
		No.	No.	No.			
Prince Edward Island—							
Queens.....	June 25, 1951	25,230	9,540	18,733	J. A. MACLEAN...	Beaton's Mills	P.C.
Nova Scotia—							
Annapolis-Kings....	June 19, 1950	31,158	14,255	26,065	G. C. NOWLAN....	Wolfville.....	P.C.
Halifax.....	June 19, 1950	90,913	24,665	43,431	S. R. BALCOM....	Halifax.....	Lib.
New Brunswick—							
Restigouche-Madawaska.....	Oct. 24, 1949	33,571	10,124	17,516	P. L. DUBÉ.....	Edmundston..	Lib.
Quebec—							
Gatineau.....	Oct. 24, 1949	19,919	5,438	9,340	J. C. NADON.....	Maniwaki....	Lib.
Kamouraska.....	Oct. 24, 1949	17,845	6,033	11,365	A. MASSE.....	Kamouraska..	Lib.
<i>Island of Montreal and Ile Jesus—</i>							
Jacques-Cartier....	Oct. 24, 1949	35,710	9,327	16,366	E. LEDUC.....	Lachine.....	Lib.
Laurier.....	Oct. 24, 1949	35,933	10,164	11,113	J. E. LEFRANÇOIS..	Montreal.....	Lib.
Mercier.....	Oct. 24, 1949	41,584	9,389	12,658	M. MONETTE.....	Pointe-aux-Trembles...	Lib.
Cartier.....	June 19, 1950	34,549	9,701	18,220	L. D. CRESTOHL...	Outremont...	Lib.
St. Mary.....	Oct. 16, 1950	34,167	9,579	15,694	H. DUPUIS.....	Montreal.....	Ind. L.
Joliette-L'Assomption-Montcalm...	Oct. 3, 1950	Acclamation			M. BRETON.....	Joliette.....	Lib.
Rimouski.....	Oct. 16, 1950	29,844	9,976	20,685	J. H. ROUSSEAU..	Trois-Pistoles	Ind. L.
Ontario—							
<i>City of Toronto—</i>							
Greenwood.....	Oct. 24, 1949	40,908	9,399	23,535	J. M. MACDONNELL	Toronto.....	P.C.
Broadview.....	May 15, 1950	41,571	10,399	21,766	G. HEES.....	Toronto.....	P.C.
Hamilton West....	May 15, 1950	40,195	8,008	19,097	ELLEN FAIRCLOUGH	Hamilton.....	P.C.
Welland.....	Oct. 16, 1950	69,816	19,553	40,653	W. H. McMILLAN..	Thorold.....	Lib.
Waterloo South....	June 25, 1951	29,866	8,950	21,356	H. MEEKER.....	New Hamburg.....	P.C.
Manitoba—							
Brandon.....	June 25, 1951	27,956	11,124	19,613	W. DINSDALE.....	Brandon.....	P.C.
Winnipeg South Centre.....	June 25, 1951	38,044	6,009	13,984	G. CHURCHILL....	Winnipeg.....	P.C.
Alberta—							
Calgary West.....	Dec. 10, 1951	44,895	10,686	22,761	C. O. NICKLE.....	Calgary.....	P.C.
British Columbia—							
New Westminster...	Oct. 24, 1949	47,759	8,727	24,871	W. M. MOTT.....	New Westminster....	Lib.

Indemnities and Allowances.—Members of the Senate receive a sessional indemnity of \$4,000. In addition, they receive an annual expense allowance of \$2,000, paid at the end of each calendar year. Members of the House of Commons are paid a sessional indemnity of \$4,000. In addition, they receive \$2,000 as an annual expense allowance, paid at the end of each calendar year. This allowance, except in the case of Ministers of the Crown and the Leaders of the Opposition in the House and in the Senate, is not subject to income tax. The remuneration of

a Cabinet Minister is \$10,000 a year, the Prime Minister receiving \$15,000, in addition to the sessional indemnity and expense allowance each receives as a Member of Parliament. The Leader of the Opposition also receives \$10,000 a year in addition to his sessional indemnity and expense allowance. Cabinet Ministers are also entitled to a motor-car allowance of \$2,000. The Speakers of the Senate and of the House of Commons receive, besides their sessional indemnity and expense allowance, a salary of \$6,000 and a motor-car allowance of \$1,000 and are also entitled to \$3,000 in lieu of residence. The Deputy Speaker of the House of Commons receives a salary of \$4,000 and an allowance in lieu of a residence of \$1,500. Parliamentary Assistants to the Ministers of the Crown, of whom there were 13 at Mar. 31, 1952, receive \$4,000 sessional indemnity as Members of Parliament, \$4,000 a year as Parliamentary Assistants and the \$2,000 allowed to all other Members of Parliament.

The Federal Government Franchise.—Legislation concerning the right to vote at federal elections is outlined in the 1947 Year Book, pp. 72-73.

The present franchise laws are contained in the Canada Elections Act, 1938 (2 Geo. VI, c. 46, as amended by 6 Geo. VI, c. 26; 12 Geo. VI, c. 46; and 14 Geo. VI, c. 35). The franchise is conferred upon all Canadian citizens or British subjects, men and women, who have attained the age of 21 years and who have been ordinarily resident in Canada for 12 months prior to polling day at a federal election, and ordinarily resident in the electoral district on the date of the issue of the writ ordering such election. Classes of persons denied the right to vote are:—

- (1) Judges appointed by the Governor General in Council;
- (2) The returning officer for each electoral district;
- (3) Persons undergoing punishment as inmates of any penal institution for the commission of any offence;
- (4) Indians ordinarily resident on an Indian Reserve who did not serve in World Wars I or II, or who did not execute a waiver of exemption under the Indian Act from taxation on and in request of personal property;
- (5) Persons restrained of their liberty or management of their property by reason of mental disease;
- (6) Doukhobors, residing in the Province of British Columbia, whether born in Canada or elsewhere, excepting those who have served in the naval, military, or air forces [of Her Majesty] in any war, and their wives and descendants;
- (7) Persons disqualified under any law relating to the disqualification of electors for corrupt and illegal practices.

The Act to amend the Canada Elections Act, passed on June 15, 1948, removed the provisions previously in effect which disqualified Japanese or other persons by reason of race from voting at federal elections, also inmates of institutions maintained by any government or municipality for the housing of the poor.

Regulations, known as the Canadian Defence Service Voting Regulations, were drawn up and promulgated in 1948 prescribing voting procedure for personnel of the Permanent Force of the Army, Navy and Air Force. The regulations provide that these voters cast their ballots for candidates in the constituency in which they last resided prior to enlistment.

11.—Voters on the Lists and Votes Polled at the Federal General Elections of 1935, 1940, 1945 and 1949

NOTE.—Corresponding statistics for the general elections of 1911, 1917, 1921 and 1925 will be found at p. 82 of the 1926 Year Book; those for 1926 at p. 66 of the 1945 edition; and those for 1930 at p. 94 of the 1948-49 edition.

Province or Territory	Voters on the Lists				Votes Polled			
	1935	1940	1945	1949	1935	1940	1945	1949
	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland.....	...	...	...	182,439	...	...	...	105,190
P. E. Island.....	53,284	55,339	54,794	55,772	61,641 ¹	62,943 ¹	63,807 ¹	68,393 ¹
Nova Scotia.....	304,313	335,990	362,754	373,585	275,523 ²	283,428 ²	312,954 ²	338,928 ²
New Brunswick.....	229,266	251,986	262,261	286,723	177,485	174,734	204,273	225,877
Quebec.....	1,575,159	1,799,942	1,956,225	2,177,152	1,162,862	1,189,489	1,433,591	1,610,510
Ontario.....	2,174,188	2,340,344	2,457,937	2,718,118	1,608,244	1,625,439	1,831,806	2,042,294
Manitoba.....	377,733	425,066	433,921	451,882	284,589	320,860	327,794	324,079
Saskatchewan.....	451,386	481,931	445,601	472,884	347,536	373,376	379,539	375,471
Alberta.....	368,956	423,609	430,430	492,228	241,107	272,418	315,863	341,222
British Columbia..	382,117	472,584	545,077	673,782	292,423	368,103	433,402	464,785
Yukon Territory..	1,805	2,097	3,445	9,064 ³	1,265	1,741	2,164	6,823 ³
Totals.....	5,918,207	6,588,888	6,952,445	7,893,629	4,452,675	4,672,531	5,305,193	5,903,572

¹ Each voter in the double-member constituency of Queens County, P.E.I., had two votes; in 1949, 25,505 voters on the list cast 41,627 votes. ² Each voter in the double-member constituency of Halifax, N.S., had two votes; in 1949, 90,803 voters on the list cast 114,201 votes. ³ Yukon-Mackenzie River Constituency includes part of Northwest Territories.

Subsection 3.—The Judiciary

The Federal Judiciary

The Parliament of Canada is empowered by Sect. 101 of the British North America Act to provide from time to time for the constitution, maintenance and organization of a general Court of Appeal for Canada and for the establishment of any additional courts for the better administration of the laws of Canada. Under this provision the Parliament of Canada has established the Supreme Court of Canada, the Exchequer Court of Canada and certain miscellaneous courts.

Supreme Court of Canada.—This Court, first established in 1875 and now governed by the Supreme Court Act (R.S.C. 1927, c. 35, as amended in 1949), consists of a chief justice, who is called the Chief Justice of Canada, and eight puisne judges. The chief justice and the puisne judges are appointed by the Governor in Council and they hold office during good behaviour but are removable by the Governor General on address of the Senate and House of Commons and they cease to hold office upon attaining the age of 75 years. The Court sits at Ottawa and exercises general appellate jurisdiction throughout Canada in civil and criminal cases. The Court is also required to consider and advise upon questions referred to it by the Governor in Council and it may also advise the Senate or House of Commons on Private Bills referred to the Court under any rules or orders of the Senate or House of Commons.

Appeals may be brought from any final judgment of the highest court of final resort in a province in any case where the amount or value of the matter in controversy exceeds the sum of \$2,000. An appeal may be brought from any other final judgment with leave of the highest court of final resort in the province; if such court refuses to grant leave, the Supreme Court of Canada may grant leave to appeal. The Supreme Court may grant leave to appeal from any judgment, whether final

or not. Appeals in respect of indictable offences are regulated by Sects. 1023 and 1025 of the Criminal Code. Appeals from federal courts are regulated by the statute establishing such courts.

The judgment of the Supreme Court of Canada in all cases is final and conclusive.

12.—Chief Justice and Judges of the Supreme Court of Canada as at Mar. 31, 1952

(In order of seniority)

Name	Date of Appointment
The Rt. Hon. Chief Justice THIBAUDEAU RINFRET.....	Jan. 8, 1944
The Hon. Justice PATRICK KERWIN.....	July 20, 1935
The Hon. Justice ROBERT TASCHEREAU.....	Feb. 9, 1940
The Hon. Justice I. C. RAND.....	Apr. 22, 1943
The Hon. Justice ROY L. KELLOCK.....	Oct. 3, 1914
The Hon. Justice JAS. W. ESTEY.....	Oct. 6, 1914
The Hon. Justice CHARLES H. LOCKE.....	June 3, 1947
The Hon. Justice JOHN R. CARTWRIGHT.....	Dec. 23, 1949
The Hon. Justice J. H. GERALD FAUTEUX.....	Dec. 23, 1949

Exchequer Court.—The Exchequer Court of Canada was first established in 1875 as part of the Supreme Court of Canada but is now a separate court governed by the Exchequer Court Act (R.S.C. 1927, c. 34). The Court consists of a president and four puisne judges who are appointed by the Governor in Council. The president and the puisne judges hold office during good behaviour but may be removed by the Governor General on address of the Senate and House of Commons. They cease to hold office upon attaining the age of 75 years. One of the puisne judges is the Chief Commissioner of the Board of Transport Commissioners. The Court sits at Ottawa and also at any other place in Canada for which sittings may be fixed by the Court. The jurisdiction of the Court extends to cases where claims are made by or against the Crown in right of Canada. Proceedings against the Crown are taken by petition of right pursuant to the Petition of Right Act (R.S.C. 1927, c. 158). Before proceedings can be taken against the Crown a fiat must be obtained from the Governor General.

An appeal lies to the Supreme Court of Canada from any final judgment of the Exchequer Court in which the amount in controversy exceeds \$500; an appeal also lies with leave of the Supreme Court in certain cases where the amount in controversy does not exceed \$500 or where the judgment is not final.

The Exchequer Court also exercises admiralty jurisdiction in Canada. Admiralty jurisdiction was first conferred in 1891 by the Admiralty Act (54-55 Vict., c. 29) and the admiralty jurisdiction is now governed by the Admiralty Act (24-25 Geo. V, c. 31). Under this statute the Exchequer Court is continued as a Court of Admiralty. The president and puisne judges of the Exchequer Court exercise admiralty jurisdiction throughout the whole of Canada. In addition, Canada is divided into various admiralty districts; a district judge in admiralty is appointed for each district. Appeals to the Supreme Court of Canada from judgments of the president or the puisne judges are governed by the general appeal provisions in the Exchequer Court Act. Appeals may be taken from a final judgment of a district judge in admiralty either to the Exchequer Court or directly to the Supreme Court of Canada.

Miscellaneous Courts.—*Railway Act.*—The Railway Act (R.S.C. 1927, c. 170) established the Board of Railway Commissioners for Canada as a court of record; by the Transport Act, 1938 (2 Geo. VI, c. 53), the name was changed to the Board of Transport Commissioners for Canada. This Court exercises jurisdiction with respect to railway matters. The Governor in Council is given jurisdiction to vary any order of the Board and an appeal lies from the Board to the Supreme Court of Canada upon a question of jurisdiction or a question of law.

Bankruptcy Act.—By virtue of para. 21 of Sect. 91 of the British North America Act, Parliament has exclusive legislative jurisdiction in relation to bankruptcy and insolvency. By the Bankruptcy Act (13 Geo. VI, c. 7) the superior courts of the provinces are constituted bankruptcy courts; original jurisdiction is conferred upon the trial courts and appellate jurisdiction is conferred upon the appeal courts of the provinces.

Farmers' Creditors Arrangement Act.—Under the Farmers' Creditors Arrangement Act, 1943 (7 and 8 Geo. VI, c. 26), the county or district courts of the provinces are established as courts for the purposes of this Act and the appeal courts of the provinces are given appellate jurisdiction.

Income Tax Appeal Board.—By the Income Tax Act (11-12 Geo. VI, c. 52) an Appeal Board is established, consisting of a chairman and not less than two or more than four members, with jurisdiction over appeals against income tax assessments. A further appeal may be taken to the Exchequer Court.

Provincial Judiciaries

Certain provisions of the British North America Act govern, to some extent, the provincial judiciaries. Under Sect. 92 (14) the legislature of each province may exclusively make laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial courts, both of civil and criminal jurisdiction. Sect. 96 provides that the Governor General in Council shall appoint the judges of the superior, district and county courts in each province, except those of the courts of probate in Nova Scotia and New Brunswick. Sect. 100 provides that the salaries, allowances and pensions of judges of the superior, district and county courts (except the courts of probate in Nova Scotia and New Brunswick) are to be fixed and provided by the Parliament of Canada and these are set out in the Judges Act, 1946 (10 Geo. VI, c. 56). Under Sect. 99 the judges of the superior courts hold office during good behaviour, but are removable by the Governor General on address of the Senate and House of Commons. The tenure of office of district and county court judges is fixed by Sect. 33 of the Judges Act, 1946, as being during good behaviour and their residence within the county or union of counties for which the court is established.

Further details of provincial judiciaries are given in the 1951 Year Book, pp. 76-82.

Section 2.—Provincial and Territorial Governments

In each of the provinces, the Queen is represented by a Lieutenant-Governor appointed by the Governor General in Council. The Lieutenant-Governor acts on the advice and with the assistance of his Ministry or Executive Council, which is responsible to the Legislature and resigns office when it ceases to enjoy the confidence of that body.

The Legislature of each province is unicameral, consisting of a Legislative Assembly, except for the Province of Quebec where there is a Legislative Council as well as a Legislative Assembly.

The Legislative Assembly is elected by the people for a statutory term of five years but may be dissolved within that period by the Lieutenant-Governor on the advice of the Premier of the province.

13.—Provinces and Territories of Canada, with Present Areas, Dates of Admission to Confederation, and Legislative Process by which Admission was Effected

Province, Territory or District	Date of Admission or Creation	Legislative Process	Present Area (sq. miles)		
			Land	Fresh Water	Total
Ontario ¹	July 1, 1867	Act of Imperial Parliament — The British North America Act, 1867 (30-31 Vict., c. 3), and Imperial Order in Council, May 22, 1867.	363,282	49,300	412,582
Quebec ²	July 1, 1867		523,860	71,000	594,860
Nova Scotia.....	July 1, 1867		20,743	325	21,068
New Brunswick.....	July 1, 1867		27,473	512	27,985
Manitoba ³	July 15, 1870	Manitoba Act, 1870 (33 Vict., c. 3) and Imperial Order in Council, June 23, 1870.....	219,723	26,789	246,512
British Columbia....	July 20, 1871	Imperial Order in Council, May 16, 1871.....	359,279	6,976	366,255
Prince Edward Island	July 1, 1873	Imperial Order in Council, June 26, 1873.....	2,184	--	2,184
Saskatchewan ⁴	Sept. 1, 1905	Saskatchewan Act, 1905 (4-5 Edw. VII, c. 42).....	237,975	13,725	251,700
Alberta ⁴	Sept. 1, 1905	Alberta Act, 1905 (4-5 Edw. VII, c. 3)..<	248,800	6,485	255,285
Newfoundland.....	Mar. 31, 1949	Act to approve the Terms of Union of Newfoundland with Canada, 1949 (13 Geo. VI, c. 1).....	147,994	7,370	155,364
Yukon Territory ⁵	June 13, 1898	Yukon Territory Act, 1898 (61 Vict., c. 6).....	205,346	1,730	207,076
Northwest Territories— ⁶					
Mackenzie ⁷	Jan. 1, 1920	Order in Council, Mar. 16, 1918.....	493,225	34,265	527,490
Keewatin ⁸	Jan. 1, 1920		218,460	9,700	228,160
Franklin ⁷	Jan. 1, 1920		541,753	7,500	549,253
Canada.....			3,610,097	235,677	3,845,774

¹ The area of Ontario was extended by the Ontario Boundaries Extension Act, 1912 (2 Geo. V, c. 40).

² Extended by Quebec Boundaries Extension Act, 1912 (2 Geo. V, c. 45), and diminished Mar. 1, 1927, in consequence of the Award of the Judicial Committee of the British Privy Council, whereby approximately 112,000 sq. miles of territory (formerly considered as part of Quebec) was assigned to Newfoundland.

³ Extended by the Extension Boundaries Act of Manitoba, 1881, and the Manitoba Boundaries Extension Act, 1912 (2 Geo. V, c. 32).

⁴ Saskatchewan and Alberta created as provinces in 1905 from the area formerly comprised in the provisional Districts of Assiniboia, Athabaska, Alberta and Saskatchewan, established May 17, 1882, by minute of Canadian Privy Council, concurred in by Dominion Parliament and Order in Council, Oct. 2, 1895.

⁵ Established as a provisional District in the Northwest Territories in 1895 and proclaimed the Yukon Judicial District on Aug. 16, 1897; was separated from the Northwest Territories and constituted the Yukon Territory in June 1898.

⁶ Rupert's Land, acquired under the Rupert's Land Acts 1867-68, and the undefined Northwestern Territory were transferred by the Imperial Government to be admitted into union with Canada as the North West Territories by Order in Council June 23, 1870 (effective July 15, 1870). The Northwest Territories were defined by the Northwest Territories Amendment Act, 1905, as that part of Rupert's Land and Northwestern Territory except such portions thereof as form Manitoba, Saskatchewan, Alberta, the District of Keewatin and Yukon Territory. In 1912, part of Rupert's Land (the District of Ungava) was annexed to Quebec and the remainder, south and west of James and Hudson Bays as far north as the 60th parallel, to Ontario and Manitoba.

⁷ Established as provincial Districts in 1895.

⁸ The District of Keewatin, created in 1876, was withdrawn from the Government of the Northwest Territories until July 24, 1905, when it was enlarged by those portions of the Districts of Saskatchewan and Athabaska not included in the Province of Saskatchewan and placed under the jurisdiction of the reorganized Northwest Territories.

The source of the powers of the Provincial Governments of Canada is the British North America Act, 1867 (30-31 Vict., c. 3 and amendments). Under Sect. 92 of the Act, the Legislature of each province may exclusively make laws in relation to the following matters: amendment of the constitution of the province except as regards the office of Lieutenant-Governor; direct taxation within the province; borrowing of money on the sole credit of the province; establishment and tenure of provincial offices and appointment and payment of provincial officers; the management and sale of public lands belonging to the province and of the timber and wood thereon; the establishment, maintenance and management of public and reformatory prisons in and for the province; the establishment, maintenance and management of hospitals, asylums, charities and eleemosynary institutions in and for the province, other than marine hospitals; municipal institutions in the province; shop, saloon, tavern, auctioneer and other licences issued for the raising of provincial, local or municipal revenue; local works and undertakings other than interprovincial or international lines of ships, railways, canals, telegraphs, etc., or works which, though wholly situated within one province, are declared by the Federal Parliament to be for the general advantage either of Canada or of two or more provinces; the incorporation of companies with provincial objects; the solemnization of marriage in the province; property and civil rights in the province; the administration of justice in the province, including the constitution, maintenance and organization of provincial courts both of civil and criminal jurisdiction, and including procedure in civil matters in those courts;* the imposition of punishment by fine, penalty, or imprisonment for enforcing any law of the province relating to any of the aforesaid subjects; and generally all matters of a merely local or private nature in the province.

Further, in and for each province the Legislature may, under Sect. 93, make laws exclusively in relation to education, subject to certain provisions. The purpose of these provisions was to preserve to a religious minority in any province the same privileges and rights in regard to education which it had at the date of Confederation, but the Provincial Legislature was not debarred from legislating on the subject of separate schools providing it did not thereby prejudicially affect privileges enjoyed before Confederation by such schools in the province. These powers, given to the four original provinces in Confederation, have, with some slight changes, been retained ever since and the more recently admitted provinces have assumed the same rights and responsibilities on their inclusion as units in the federation as were previously enjoyed by the older provinces.

Provincial Franchise.—The main qualifications for persons entitled to be registered as voters in provincial elections are given below and apply, with minor modifications, to voters in all provinces:—

Every person, male or female, at the age of 21 years, who is a British subject or a Canadian citizen and was resident in the province of registration 12 months prior to the election date and with two months residence in the electoral district of polling, and who falls under no statutory disqualification, is entitled to be registered as a voter.

The principal exception to the above gives voting privileges to persons in Saskatchewan and Alberta at the age of 18 years and 19 years, respectively.

Residence required in the Province of Quebec for provincial elections is two years and in British Columbia six months. In Manitoba a residence period of three months in the electoral district is necessary for registration. Further details connected with disqualifications, etc., may be found in the Election Act of each of the provinces.

* A description of the provincial courts is given in the 1951 Year Book, pp. 76-82.

Subsection 1.—Newfoundland

The Government of Newfoundland consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. Colonel the Honourable Sir Leonard Outerbridge is the present Lieutenant-Governor of the Province and was commissioned on Aug. 17, 1949.

The Legislative Assembly has 28 members elected for a term of five years.

The Premier and each Cabinet Minister receives a salary of \$7,000 per annum plus a sessional indemnity of \$3,000. Each Member of the House of Assembly receives a sessional indemnity of \$3,000. An allowance of \$2,000 is made to the Leader of the Opposition.

14.—Legislatures of Newfoundland, 1949-52, and Ministry as at Mar. 31, 1952

Legislatures, 1949-52

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
May 27, 1949	1st General Assembly.....	4	July 13, 1949	Nov. 3, 1951
Nov. 26, 1951	2nd General Assembly.....	1	Mar. 12, 1952	1

1 Life of Legislature not expired at Mar. 31, 1952.

First Ministry

(Party standing at latest General Election, Nov. 26, 1951: 22 Liberals; 4 Progressive Conservatives; 2 vacant.)

NOTE.—Date of appointment does not necessarily mean that the Minister was sworn in on date given.

Office	Name	Date of First Appointment
Premier and Minister of Economic Development and Minister of Natural Resources..	Hon. J. R. SMALLWOOD.....	Apr. 1, 1949
Attorney General.....	Hon. L. R. CURTIS.....	Apr. 1, 1949
Minister of Public Welfare.....	Hon. H. L. POTTLE.....	Apr. 4, 1949
Minister of Fisheries and Co-operatives....	Hon. W. J. KEOUGH.....	July 29, 1949
Minister of Education.....	Hon. S. J. HEFFERTON.....	Apr. 4, 1950
Minister of Public Works.....	Hon. E. S. SPENCER.....	July 29, 1949
Minister of Labour.....	Hon. C. H. BALLAM.....	Apr. 4, 1950
Minister of Health.....	Hon. J. R. CHALKER.....	July 29, 1950
Minister of Supply.....	Hon. P. S. FORSEY.....	July 29, 1949
Minister of Finance.....	Hon. GREGORY J. POWER.....	Dec. 15, 1951
Minister of Provincial Affairs.....	Hon. MYLES P. MURRAY.....	Dec. 15, 1951
Minister without portfolio.....	Hon. P. J. LEWIS.....	Dec. 15, 1951

Subsection 2.—Prince Edward Island

The Government of Prince Edward Island consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly.

The Honourable T. W. L. Prowse, the present Lieutenant-Governor of the Province, was commissioned to office on Oct. 4, 1950. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 86.

The Legislative Assembly has 30 members who serve for a statutory term of five years, 15 of whom are elected on a basis of adult suffrage and the other 15 elected by property holders only.

The salary of the Premier is \$6,000 and the salaries of the Cabinet Ministers are as follows: Attorney and Advocate General and Provincial Treasurer, \$4,500; Minister of Health and Welfare, Minister of Public Works and Highways, Minister of Industry and Natural Resources, Minister of Agriculture, \$4,000 each; Minister of Education and Provincial Secretary, \$3,000 each. Each Member of the Assembly is paid the sum of \$1,000 for each session attended by him and an additional amount of \$500, tax free, as indemnity for expenses incurred. The Speaker is paid a further additional sum of \$400 and an additional amount of \$200, tax free, for indemnity incurred, and the Leader of the Opposition is paid a further additional sum of \$800 and an additional amount of \$200, tax free, for indemnity incurred by him in relation to his official duties.

15.—Legislatures and Premiers of Prince Edward Island, 1935-52, and Ministry as at Mar. 31, 1952

Legislatures, 1935-52¹

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
July 23, 1935	18th General Assembly.....	5	Sept. 25, 1935.....	Apr. 21, 1939
May 18, 1939	19th General Assembly.....	4	Mar. 20, 1940.....	Aug. 20, 1943
Sept. 15, 1943	20th General Assembly.....	4	Feb. 15, 1944.....	Oct. 27, 1947
Dec. 11, 1947	21st General Assembly.....	5	Feb. 24, 1948.....	Mar. 30, 1951
Apr. 26, 1951	22nd General Assembly.....	2	Oct. 23, 1951.....	²

¹ The Ministries from 1935-52 were: 19th Ministry, sworn in Oct. 14, 1933, under the leadership of Hon. W. J. P. MacMillan; 20th Ministry, sworn in Aug. 15, 1935, under the leadership of Hon. W. M. Lea; 21st Ministry, sworn in Jan. 14, 1936, under the leadership of Hon. T. A. Campbell; 22nd Ministry, sworn in May 11, 1943, under the leadership of Hon. J. Walter Jones.

² Life of Legislature not expired at Mar. 31, 1952.

Twenty-Second Ministry

(Party standing at latest General Election, Apr. 26, 1951: 24 Liberals and 6 Progressive Conservatives.)

NOTE.—Ministers who have held office continuously are shown at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier. Date of appointment does not necessarily mean that the Minister was sworn in on date given.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier, President of the Executive Council and Minister of Education.	Hon. J. WALTER JONES.....	May 11, 1943	Feb. 9, 1944
Minister of Health and Welfare.....	Hon. ALEXANDER W. MATHESON..	May 11, 1943	Mar. 12, 1948
Attorney and Advocate General and Provincial Treasurer.....	Hon. WALTER E. DARBY.....	Oct. 13, 1949	Oct. 13, 1949
Minister of Agriculture.....	Hon. C. CLEVELAND BAKER.....	Apr. 16, 1949	Oct. 13, 1949
Minister of Industry and Natural Resources.....	Hon. EUGENE CULLEN.....	Apr. 16, 1949	Oct. 13, 1949
Minister of Public Works and Highways.....	Hon. DOUGALD MACKINNON.....	Sept. 16, 1939	June 16, 1951
Provincial Secretary.....	Hon. J. WILFRID ARSENAULT.....	Feb. 12, 1948	Oct. 13, 1949
Minister without portfolio.....	Hon. KEIR CLARK.....	June 16, 1951	June 16, 1951
Minister without portfolio.....	Hon. J. BRENTON ST. JOHN.....	June 16, 1951	June 16, 1951

Subsection 3.—Nova Scotia

The Government of the Province of Nova Scotia has a Lieutenant-Governor, an Executive Council and a House of Assembly.

The Honourable J. A. D. McCurdy, the present Lieutenant-Governor, was commissioned to office Aug. 12, 1947. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 87.

The House of Assembly has 37 members elected for five years, the maximum duration of its existence.

The Premier of the Province receives a salary of \$9,000 per annum and each Cabinet Minister a salary of \$8,000 per annum. Each Member of the House of Assembly receives a sessional indemnity of \$1,600 and an allowance of \$800 for expenses incidental to the discharge of his duties. The Leader of the Opposition receives an allowance of \$1,000 in addition to his sessional indemnity.

16.—Legislatures and Premiers of Nova Scotia, 1933-52, and Ministry as at Mar. 31, 1952

Legislatures, 1933-52¹

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Aug. 22, 1933	17th General Assembly.....	4	Mar. 1, 1934	May 20, 1937
June 29, 1937	18th General Assembly.....	4	Mar. 1, 1938	Sept. 19, 1941
Oct. 28, 1941	19th General Assembly.....	4	Feb. 19, 1942	Sept. 12, 1945
Oct. 23, 1945	20th General Assembly.....	4	Mar. 14, 1946	April 27, 1949
June 9, 1949	21st General Assembly.....	2	Mar. 21, 1950	²

¹ The Ministries from 1933-52 were: 12th Ministry, sworn in Sept. 5, 1933, under the leadership of Hon. Angus L. Macdonald; 13th Ministry, sworn in July 10, 1940, under the leadership of Hon. A. S. MacMillan; 14th Ministry, sworn in Sept. 8, 1945, under the leadership of Hon. Angus L. Macdonald. ² Life of Legislature not expired at Mar. 31, 1952.

Fourteenth Ministry

(Party standing at latest General Election, June 9, 1949: 27 Liberals, 8 Progressive Conservatives and 2 Co-operative Commonwealth Federation.)

NOTE.—See headnote to Table 15.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier, President of Council and Provincial Treasurer.	HON. ANGUS L. MACDONALD	Sept. 3, 1933	Premier—Sept. 8, 1945 Provincial Treasurer— June 10, 1947
Attorney General.....	HON. MALCOLM A. PATTERSON	June 10, 1947	Nov. 22, 1949
Minister of Highways and Public Works.....	HON. M. D. RAWDING.....	July 31, 1947	July 31, 1947
Minister of Agriculture and Marketing and Minister of Lands and Forests.	HON. A. W. MACKENZIE.....	Sept. 8, 1945	Agriculture and Marketing—Sept. 8, 1945 Lands and Forests— Oct. 3, 1947
Minister of Public Health and Minister of Public Welfare...	HON. HAROLD CONNOLLY.....	Feb. 24, 1941	Aug. 31, 1950
Minister of Mines and Minister of Labour	HON. A. H. MCKINNON.....	Sept. 29, 1949	Mines—Dec. 30, 1949 Labour—Dec. 30, 1949
Minister of Education.....	HON. HENRY D. HICKS.....	Sept. 29, 1949	Sept. 29, 1949
Minister of Municipal Affairs..	HON. RONALD M. FIELDING	Dec. 7, 1949	Dec. 7, 1949
Minister without portfolio (in charge of administration of Nova Scotia Liquor Control Act).....	HON. GEOFFREY STEVENS.....	Apr. 4, 1946	Apr. 4, 1946
Provincial Secretary.....	HON. A. B. DEWOLFE.....	Aug. 31, 1950	July 21, 1951
Minister of Trade and Industry	HON. W. T. DAUPHINEE.....	Aug. 31, 1950	Aug. 31, 1950

Subsection 4.—New Brunswick

The Government of New Brunswick has a Lieutenant-Governor, an Executive Council and a House of Assembly.

The Honourable David Laurence MacLaren, the present Lieutenant-Governor, was commissioned to office Nov. 1, 1945. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 89.

The Legislative Assembly has 52 members who are elected for a statutory term of five years.

The Premier receives a salary of \$5,000 in addition to the salary for any other portfolio he may hold. The salary of each Cabinet Minister is \$5,000, the amount paid as indemnity to each Member of the House of Assembly is \$1,500, and the Leader of the Opposition receives an additional \$2,000. An allowance of \$1,000, in addition to the regular indemnity, is made to the Speaker.

17.—Legislatures and Premiers of New Brunswick, 1935-52, and Ministry as at Mar. 31, 1952

Legislatures, 1935-52¹

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 27, 1935	11th General Assembly.....	4	Mar. 5, 1936	Oct. 26, 1939
Nov. 20, 1939	12th General Assembly.....	5	Apr. 4, 1940	July 10, 1944
Aug. 28, 1944	13th General Assembly.....	4	Feb. 20, 1945	May 18, 1948
June 28, 1948	14th General Assembly.....	2	Mar. 8, 1949	2

¹ The Ministries from 1935-52 were: 20th Ministry, sworn in July 16, 1935, under the leadership of Hon. A. A. Dysart; 21st Ministry, sworn in Mar. 13, 1940, under the leadership of Hon. J. B. McNair.
² Life of Legislature not expired at Mar. 31, 1952.

Twenty-First Ministry

(Party standing at latest General Election, June 28, 1948: 47 Liberals and 5 Progressive Conservatives.)

NOTE.—See headnote to Table 15.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier and Attorney General.....	Hon. J. B. McNAIR.....	July 16, 1935	Mar. 13, 1940
Provincial Secretary-Treasurer and President of Executive Council....	Hon. J. GASPARD BOUCHER.....	Jan. 10, 1940	Aug. 10, 1949
Minister of Public Works.....	Hon. W. S. ANDERSON.....	July 16, 1938	July 16, 1938
Minister of Lands and Mines.....	Hon. RICHARD J. GILL.....	May 16, 1946	May 16, 1946
Minister of Agriculture.....	Hon. A. C. TAYLOR.....	July 16, 1935	July 16, 1935
Minister of Health and Social Services.....	Hon. F. A. McGRAND.....	Sept. 27, 1944	Sept. 27, 1944
Minister of Labour.....	Hon. SAMUEL E. MOOERS.....	Sept. 27, 1944	Sept. 27, 1944
Minister of Education and Municipal Affairs.....	Hon. JAMES W. BRITAIN.....	Nov. 2, 1948	Nov. 2, 1948
Minister of Industry and Development.....	Hon. J. A. DOUCET.....	Mar. 13, 1940	Sept. 27, 1944
Minister without portfolio (Chairman of the New Brunswick Electric Power Commission).....	Hon. ISAIE MELANSON.....	Aug. 11, 1949	Aug. 11, 1949

Subsection 5.—Quebec

The Government of Quebec consists of the Lieutenant-Governor, an Executive Council, and a bicameral legislature—the Legislative Council and the Legislative Assembly.

The Honourable Gaspard Fauteux, the present Lieutenant-Governor, was commissioned to office Oct. 3, 1950. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 90.

The Legislative Council has 24 members nominated for life by the Lieutenant-Governor in Council. The Legislative Assembly has 92 members and, like the Legislative Council, has the power to bring forward bills relating to civil and administrative matters and to the amendment or repeal of laws that already exist. A Bill, to be approved by the Lieutenant-Governor, must have received the assent of both Houses. Only the Legislative Assembly can bring forward a Bill requiring the expenditure of public money. The maximum life of a Legislature is five years.

Salaries and allowances of the Premier, Members of the Executive Council, Legislative Council and Legislative Assembly are fixed according to the R.S.Q. 1941, c. 4, as amended by 10 Geo. VI, c. 11, as follows: all Members of the Legislative Assembly and Legislative Council receive \$3,000 per annum as salary and \$1,000 by way of allowances; in addition, the Premier receives \$10,000 as salary and \$4,000 allowances; Ministers with portfolio an additional \$6,000 as salary and \$2,000 allowances; Ministers without portfolio an additional \$2,000 salary and \$2,000 allowances; the Leader of the Opposition in the Legislative Assembly an additional \$6,000 salary and \$2,000 allowances; and the Leader of the Opposition in the Legislative Council an additional \$2,000 allowances.

18.—Legislatures and Premiers of Quebec, 1931-52, the Ministry and Members of the Legislative Council, as at Mar. 31, 1952

Legislatures, 1931-52¹

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Aug. 24, 1931	18th General Assembly.....	4	Nov. 3, 1931	Oct. 30, 1935
Nov. 25, 1935	19th General Assembly.....	1	Mar. 24, 1936	June 11, 1936
Aug. 17, 1936	20th General Assembly.....	4	Oct. 7, 1936	Sept. 23, 1939
Oct. 25, 1939	21st General Assembly.....	5	Feb. 20, 1940	June 29, 1944
Aug. 8, 1944	22nd General Assembly.....	4	Feb. 7, 1945	June 9, 1948
July 28, 1948	23rd General Assembly.....	2	Jan. 19, 1949	2

¹ The Ministries from 1931-52 were: 16th Ministry, sworn in July 8, 1920, under the leadership of Hon. L. A. Taschereau; 17th Ministry, sworn in June 11, 1936, under the leadership of Hon. A. Godbout; 18th Ministry sworn in Aug. 24, 1936, under the leadership of Hon. Maurice L. Duplessis; 19th Ministry, sworn in Nov. 10, 1939, under the leadership of Hon. A. Godbout; 20th Ministry, sworn in Aug. 30, 1944, under the leadership of Hon. Maurice L. Duplessis.

² Life of Legislature not expired at Mar. 31, 1952.

Twentieth Ministry

(Party standing at latest General Election, July 28, 1948: 82 Union Nationale, 8 Liberals and 2 Independents.)

NOTE.—See headnote to Table 15.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier and President of Executive Council.....	Hon. MAURICE L. DUPLESSIS.....	Aug. 24, 1936	Aug. 30, 1944
Provincial Treasurer.....	Hon. ONESIME GAGNON.....	Oct. 6, 1936	Aug. 30, 1944
Minister of Lands and Forests.....	Hon. J. S. BOURQUE.....	Aug. 24, 1936	Aug. 30, 1944
Minister of Health.....	Hon. J. A. PAQUETTE.....	Aug. 24, 1936	Aug. 30, 1944
Minister of Municipal Affairs.....	Hon. BONA DUSSAULT.....	Aug. 24, 1936	Aug. 30, 1944
Minister of Roads.....	Hon. ANTONIO TALBOT.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Public Works.....	Hon. ROMÉO LORRAIN.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Mines.....	Hon. C. DANIEL FRENCH.....	Dec. 15, 1948	Dec. 15, 1948
Minister of Colonization.....	Hon. Jos. D. BÉGIN.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Game and Fisheries.....	Hon. C. E. POULIOT.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Labour.....	Hon. ANTONIO BARRETTE.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Trade and Commerce.....	Hon. PAUL BEAULIEU.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Agriculture.....	Hon. LAURENT BARRÉ.....	Aug. 30, 1944	Aug. 30, 1944
Provincial Secretary.....	Hon. OMER CÔTÉ.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Social Welfare and of Youth	Hon. PAUL SAUVÉ.....	Sept. 18, 1946	Sept. 18, 1946
Solicitor General.....	Hon. ANTOINE RIVARD.....	Dec. 15, 1948	Apr. 12, 1950
Minister without portfolio.....	Hon. ANTONIO ELIE.....	Aug. 24, 1936	Aug. 30, 1944
Minister without portfolio.....	Hon. TANCRÈDE LABBÉ.....	Aug. 30, 1944	Aug. 30, 1944
Minister without portfolio.....	Hon. MARC TRUDEL.....	Aug. 30, 1944	Aug. 30, 1944
Minister without portfolio.....	Hon. PATRICE TARDIF.....	Aug. 30, 1944	Aug. 30, 1944
Minister without portfolio.....	Hon. J. H. DELISLE.....	Aug. 30, 1944	Aug. 30, 1944

Legislative Council
(According to seniority)

Name	Division	Date of Appointment
GEORGES-AIMÉ SIMARD.....	Repentigny.....	Nov. 12, 1913
P.-R. DU TREMBLAY.....	Sorel.....	Jan. 3, 1925
R.-O. GROTHÉ.....	De Salaberry.....	Dec. 23, 1927
ELISÉE THÉRIAULT.....	Kennebec.....	Apr. 23, 1929
JACOB NICOL.....	Bedford.....	Sept. 16, 1929
VICTOR MARCHAND.....	Rigaud.....	Apr. 15, 1932
GUSTAVE LEMIEUX.....	Montarville.....	Dec. 2, 1932
HECTOR LAFERTÉ.....	Stadacona.....	July 23, 1934
ÉMILE MOREAU.....	Laizon.....	June 6, 1935
ALPHONSE RAYMOND.....	De Lorimier.....	Aug. 28, 1936
J.-L. BARIBEAU (Speaker).....	Shawinigan.....	Jan. 14, 1938
PHILIPPE BRAIS.....	Grandville.....	Feb. 16, 1940
JULES BRILLANT.....	Golfe.....	Jan. 14, 1942
FRANK L. CONNORS.....	Mille Isles.....	Jan. 14, 1942
ROBERT R. NESS.....	Inkerman.....	Jan. 14, 1942
WILFRID BOVEY.....	Rougemont.....	Feb. 12, 1942
FÉLIX MESSIER.....	De Lanaudière.....	Feb. 12, 1942
CHARLES DELAGRAVE.....	De la Durantaye.....	June 22, 1944
ÉDOUARD ASSÉLIN.....	Wellington.....	Jan. 23, 1946
GEO. B. FOSTER.....	Victoria.....	Aug. 22, 1946
GÉRALD MARTINEAU.....	Les Laurentides.....	Aug. 22, 1946
J.-OLIER RENAUD.....	Alma.....	Aug. 22, 1946
J.-T. LAROCHELLE.....	La Salle.....	Dec. 29, 1948

Subsection 6.—Ontario

The Government of Ontario consists of the Lieutenant-Governor, the Executive Council and the House of Assembly. The Honourable Louis O. Breithaupt, the present Lieutenant-Governor of the Province, was commissioned to office Jan. 24, 1952. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 92.

The House of Assembly, the single-chamber Legislature of the Province, is composed of 90 members elected for a statutory term of five years on an adult-suffrage basis.

Besides the regular departments of government, the Niagara Parks Commission, the Ontario Municipal Board, the Hydro-Electric Power Commission of Ontario, the Ontario Northland Transportation Commission, the Liquor Control Board and the Liquor Licence Board have been created.

Under the provisions of the Legislative Assembly Act (R.S.O. 1950, c. 202, as amended 1952, c. 51), each Member of the Assembly is paid an annual indemnity of \$2,600 and an allowance for expenses of \$1,300. In addition, the Speaker receives a special indemnity at the annual rate of \$3,000 and an expense allowance of \$2,000; the Chairman of the Committee of the Whole a special indemnity at the annual rate of \$1,000 and the Leader of the Opposition a special indemnity of \$3,000 and an annual allowance of \$2,000 for expenses. Each Member of the Cabinet receives the ordinary indemnity as a Member of the Legislature of \$2,600 plus the \$1,300 expense allowance in addition to his salary as a Minister of the Crown. The salary provided in the Executive Council Act for a Cabinet Minister is \$10,000.

19.—Legislatures and Premiers of Ontario, 1934-52, and Ministry as at Mar. 31, 1952

Legislatures, 1934-52¹

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1934	19th General Assembly.....	3	Feb. 20, 1935	Apr. 9, 1936
Oct. 6, 1937	20th General Assembly.....	8	Dec. 1, 1937	June 30, 1943
Aug. 4, 1943	21st General Assembly.....	2	Feb. 22, 1944	Mar. 24, 1945
June 4, 1945	22nd General Assembly.....	4	July 16, 1945	Apr. 27, 1948
June 7, 1948	23rd General Assembly.....	4	Feb. 10, 1949	Oct. 6, 1951
Nov. 22, 1951	24th General Assembly.....	2	Feb. 21, 1952	2

¹ The Ministries from 1934-52 were: 11th Ministry, sworn in July 10, 1934, under the leadership of Hon. M. F. Hepburn; 12th Ministry, sworn in Oct. 21, 1942, under the leadership of Hon. G. D. Conant; 13th Ministry, sworn in May 18, 1943, under the leadership of Hon. H. C. Nixon; 14th Ministry, sworn in Aug. 17, 1943, under the leadership of Hon. George A. Drew; 15th Ministry, sworn in Oct. 10, 1948, under the leadership of Hon. Thomas L. Kennedy; 16th Ministry, sworn in May 4, 1949, under the leadership of Hon. Leslie M. Frost.

² Life of Legislature not expired at Mar. 31, 1952.

Sixteenth Ministry

(Party standing at latest General Election, Nov. 22, 1951: 79 Progressive Conservatives, 8 Liberals, 2 Co-operative Commonwealth Federation and 1 Labour-Progressive.)

NOTE.—See headnote to Table 15.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier, President of the Council and Provincial Treasurer.....	Hon. LESLIE M. FROST.....	Aug. 17, 1943	May 4, 1949
Minister of Agriculture.....	Hon. THOMAS L. KENNEDY.....	Sept. 16, 1930	Aug. 17, 1943
Minister of Highways.....	Hon. GEORGE H. DOUCETT.....	Aug. 17, 1943	Aug. 17, 1943
Attorney General.....	Hon. DANA H. PORTER.....	May 8, 1944	May 4, 1949
Minister without portfolio.....	Hon. GEORGE H. CHALLES.....	July 31, 1931	Aug. 17, 1943
Minister of Municipal Affairs.....	Hon. GEORGE H. DUNBAR.....	Aug. 17, 1943	Aug. 17, 1943
Minister of Labour.....	Hon. CHARLES DALEY.....	Aug. 17, 1943	Aug. 17, 1943
Provincial Secretary and Registrar.....	Hon. G. ARTHUR WELSH.....	Jan. 7, 1945	May 4, 1949
Minister of Public Welfare.....	Hon. WILLIAM A. GOODFELLOW.....	Jan. 7, 1945	Jan. 7, 1945
Minister of Planning and Development.....	Hon. WILLIAM GRESINGER.....	Apr. 15, 1946	May 4, 1949
Minister of Lands and Forests.....	Hon. HAROLD R. SCOTT.....	Nov. 28, 1946	Nov. 28, 1946
Minister of Travel and Publicity.....	Hon. LOUIS P. CECILE.....	Oct. 19, 1948	Oct. 19, 1948
Minister of Mines.....	Hon. WELLAND S. GEMMELL.....	May 4, 1949	May 4, 1949
Minister without portfolio.....	Hon. WILLIAM E. HAMILTON.....	July 15, 1949	Nov. 16, 1950
Minister of Health.....	Hon. MACKINNON PHILLIPS.....	Aug. 8, 1950	Aug. 8, 1950
Minister of Reform Institutions.....	Hon. JOHN W. FOOTE.....	Nov. 16, 1950	Nov. 16, 1950
Minister of Education.....	Hon. WILLIAM J. DUNLOP.....	Oct. 2, 1951	Oct. 2, 1951
Minister of Public Works.....	Hon. FLETCHER S. THOMAS.....	Oct. 2, 1951	Oct. 2, 1951

Subsection 7.—Manitoba

Besides its Lieutenant-Governor, Manitoba has a Provincial Executive composed of 10 members and a Legislative Assembly of 57 members, elected for a statutory term of five years. The Honourable Roland Fairbairn McWilliams, the present Lieutenant-Governor of the Province, was commissioned to office Nov. 1, 1940. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 94.

The Premier of the Province is paid a salary of \$8,000 per annum and each of the other Members of the Cabinet \$6,000. Members of the Legislature are each paid an indemnity of \$1,670 and an expense allowance of \$830. The Leader of the Opposition is paid an additional amount of \$2,000 and the Speaker of the Legislature an additional amount of \$2,500.

20.—Legislatures and Premiers of Manitoba, 1932-52, and Ministry as at Mar. 31, 1952

Legislatures, 1932-52¹

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 16, 1932	19th General Assembly.....	4	Feb. 14, 1933	June 12, 1936
July 27, 1936	20th General Assembly.....	5	Feb. 18, 1937	Mar. 13, 1941
Apr. 22, 1941	21st General Assembly.....	5	Dec. 9, 1941	Sept. 8, 1945
Oct. 15, 1945	22nd General Assembly.....	4	Feb. 19, 1946	Sept. 29, 1949
Nov. 10, 1949	23rd General Assembly.....	3	Feb. 14, 1950	²

¹ The Ministries from 1932-52 were: 12th Ministry, sworn in Aug. 8, 1922, under the leadership of Hon. J. Bracken; 13th Ministry, sworn in Jan. 14, 1943, under the leadership of Hon. Stuart S. Garson, K.C.; 14th Ministry, sworn in Nov. 13, 1948, under the leadership of Hon. D. L. Campbell. ² Life of Legislature not expired at Mar. 31, 1952.

Fourteenth Ministry

(Party standing at latest General Election, Nov. 10, 1949: 43 Coalition [30 Liberal-Progressive, 9 Progressive Conservative, 4 Independent], 14 Anti-Coalition [7 Co-operative Commonwealth Federation, 6 Independent, 1 Labour-Progressive].)

NOTE.—See headnote to Table 15.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier, President of the Council, Minister of Dominion - Provincial Relations.....	HON. DOUGLAS L. CAMPBELL.....	Sept. 21, 1936	Nov. 13, 1948
Minister of Agriculture and Immigration.....	HON. FRANCIS C. BELL.....	Dec. 14, 1948	Dec. 14, 1948
Minister of Labour and Provincial Secretary.....	HON. CHAS. E. GREENLAY.....	Feb. 15, 1946	Dec. 14, 1948
Municipal Commissioner.....	HON. EDMOND PREFONTAINE.....	Dec. 1, 1951	Dec. 1, 1951
Minister of Mines and Natural Resources.....	HON. JOHN S. MCDIARMID.....	May 27, 1932	May 27, 1932
Attorney General.....	HON. C. RHODES SMITH.....	Nov. 4, 1940	Aug. 16, 1950
Minister of Public Utilities.....	HON. WILLIAM MORTON.....	Nov. 22, 1939	Dec. 14, 1948
Minister of Public Works.....	HON. WILLIAM MORTON.....	Nov. 22, 1939	Aug. 19, 1950
Minister of Health and Public Welfare.....	HON. IVAN SCHULTZ.....	Sept. 21, 1936	Feb. 5, 1944
Minister of Education.....	HON. WALLACE C. MILLER.....	Feb. 15, 1946	Aug. 16, 1950
Provincial Treasurer.....	HON. RONALD DAVID TURNER.....	Dec. 1, 1951	Dec. 1, 1951

Subsection 8.—Saskatchewan

The Government of the Province of Saskatchewan consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly.

The Honourable W. J. Patterson, the present Lieutenant-Governor, was commissioned to office July 4, 1951. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 95.

The statutory number of members of the Legislative Assembly is 52, elected for a maximum term of five years.

The Premier receives \$6,500 and each Cabinet Minister \$5,000 annually in addition to the sessional indemnity, while the Leader of the Opposition, the Speaker and the Deputy Speaker receive an additional \$2,500, \$1,500 and \$600, respectively. The annual salary of a Member of the Legislature is \$2,000 together with an expense allowance of \$1,000.

21.—Legislatures and Premiers of Saskatchewan, 1934-52, and Ministry as at Mar. 31, 1952

Legislatures, 1934-52¹

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1934	8th General Assembly.....	4	Nov. 15, 1934	May 14, 1938
June 8, 1938	9th General Assembly.....	6	Jan. 19, 1939	May 10, 1944
June 15, 1944	10th General Assembly.....	5	Oct. 19, 1944	May 19, 1948
June 24, 1948	11th General Assembly.....	2	Feb. 10, 1949	2

¹ The Ministries from 1934-52 were: 6th Ministry, sworn in July 19, 1934, under the leadership of Hon. J. G. Gardiner; 7th Ministry, sworn in Nov. 1, 1935, under the leadership of Hon. W. J. Patterson; 8th Ministry, sworn in July 10, 1944, under the leadership of Hon. T. C. Douglas. ² Life of Legislature not expired at Mar. 31, 1952.

Eighth Ministry

(Party standing at latest General Election, June 24, 1948: 31 Co-operative Commonwealth Federation, 19 Liberals, 1 Independent and 1 Liberal Progressive-Conservative.)

NOTE.—See headnote to Table 15.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier, President of the Council (Minister of Co-operation and Co-operative Development, Nov. 14, 1949).....	Hon. T. C. DOUGLAS.....	July 10, 1944	July 10, 1944
Provincial Treasurer.....	Hon. C. M. FINES.....	July 10, 1944	July 10, 1944
Attorney General.....	Hon. J. W. CORMAN.....	July 10, 1944	July 10, 1944
Minister of Social Welfare and Rehabilitation.....	Hon. J. H. STURDY.....	July 10, 1944	Aug. 4, 1948
Provincial Secretary.....	Hon. C. C. WILLIAMS.....	July 10, 1944	Aug. 4, 1948
Minister of Highways and Transportation.....	Hon. J. T. DOUGLAS.....	July 10, 1944	July 10, 1944
Minister of Education.....	Hon. W. S. LLOYD.....	July 10, 1944	July 10, 1944
Minister of Labour.....	Hon. C. C. WILLIAMS.....	July 10, 1944	Nov. 13, 1944
Minister of Municipal Affairs.....	Hon. L. F. MCINTOSH.....	July 10, 1944	Aug. 4, 1948
Minister of Natural Resources.....	Hon. J. H. BROCKELBANK.....	July 10, 1944	Aug. 4, 1948
Minister of Public Health.....	Hon. T. J. BENTLEY.....	Nov. 14, 1949	Nov. 14, 1949
Minister of Agriculture.....	Hon. I. C. NOLLET.....	Jan. 8, 1946	Jan. 8, 1946
Minister of Public Works and Telephones and Telegraphs.....	Hon. J. A. DARLING.....	Aug. 4, 1948	Aug. 4, 1948

Subsection 9.—Alberta

The Government of the Province of Alberta is composed of the Lieutenant-Governor, the Executive Council and the Legislative Assembly.

The Honourable John J. Bowlen, the present Lieutenant-Governor, was commissioned to office Feb. 1, 1950. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 96.

There are 57 members of the Legislative Assembly who are elected for a maximum period of five years.

The salary of the President of the Executive Council is \$9,000 and of a Cabinet Minister \$7,000. Since no party is recognized as the Official Opposition, a special allowance of \$1,000 is paid to the Leader of the Liberal Party and \$500 to the Leader

of the Co-operative Commonwealth Federation Party. The sessional indemnity for each Member of the Legislative Assembly is \$2,000 plus an expense allowance of \$1,000.

22.—Legislatures and Premiers of Alberta, 1935-52, and Ministry as at Mar. 31, 1952

Legislatures, 1935-52¹

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Aug. 22, 1935	8th General Assembly.....	9	Feb. 6, 1936	Feb. 16, 1940
Mar. 21, 1940	9th General Assembly.....	4	Feb. 20, 1941	July 7, 1944
Aug. 8, 1944	10th General Assembly.....	5	Feb. 22, 1945	July 16, 1948
Aug. 17, 1948	11th General Assembly.....	2	Feb. 17, 1949	^a

¹ The Ministries from 1935-52 were: 6th Ministry, sworn in July 10, 1934, under the leadership of Hon. R. G. Reid; 7th Ministry, sworn in Sept. 3, 1935, under the leadership of Hon. Wm. Aberhart; 8th Ministry, sworn in May 31, 1943, under the leadership of Hon. Ernest C. Manning. ² Life of Legislature not expired at Mar. 31, 1952.

Eighth Ministry

(Party standing at latest General Election, Aug. 17, 1948: 51 Social Credit, 2 Co-operative Commonwealth Federation, 2 Liberals, 1 Independent Social Credit, 1 Independent.)

NOTE.—See headnote to Table 15.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier and Provincial Treasurer...	Hon. ERNEST C. MANNING.....	Sept. 3, 1935	May 31, 1943
Attorney General.....	Hon. LUCIEN MAYNARD.....	May 12, 1936	June 1, 1943
Minister of Education.....	Hon. IVAN CASEY.....	Feb. 21, 1948	Feb. 21, 1948
Minister of Mines and Minerals, and Lands and Forests.....	Hon. NATHAN E. TANNER.....	Jan. 5, 1937	Jan. 5, 1937
Minister of Public Works.....	Hon. D. B. MACMILLAN.....	Dec. 3, 1940	May 8, 1948
Minister of Health and Minister of Public Welfare.....	Hon. W. W. CROSS.....	Sept. 3, 1935	Sept. 3, 1935
Minister of Economic Affairs.....	Hon. ALFRED J. HOOKE.....	Apr. 20, 1945	Apr. 20, 1945
Minister of Municipal Affairs and Provincial Secretary.....	Hon. C. E. GERHART.....	June 1, 1943	May 8, 1948
Minister of Agriculture.....	Hon. D. A. URE.....	May 8, 1948	May 8, 1948
Minister of Industries and Labour.....	Hon. J. L. ROBINSON.....	May 8, 1948	May 8, 1948
Minister of Railways and Telephones.....	Hon. G. E. TAYLOR.....	May 1, 1951	Dec. 27, 1951
Minister of Highways.....	Hon. G. E. TAYLOR.....	May 1, 1951	May 1, 1951

Subsection¹ 10.—British Columbia

The Government of British Columbia has a Lieutenant-Governor, an Executive Council and a Legislative Assembly.

Colonel the Honourable Clarence Wallace, the present Lieutenant-Governor of the Province, was commissioned to office Oct. 1, 1950. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 98.

The Legislative Assembly, elected for a statutory term of five years, has 48 members.

Members of the Executive Council and the Legislative Assembly each receive sessional allowances of \$2,000 and \$1,000 for expenses. In addition, the Premier receives a salary of \$9,000 and each Member of the Executive Council \$7,500. The Leader of the Opposition has a special allowance of \$2,000 and the Speaker and Deputy Speaker receive allowances of \$1,800 and \$500, respectively.

23.—Legislatures and Premiers of British Columbia, 1933-52, and Ministry as at Mar. 31, 1952

Legislatures, 1933-52¹

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Nov. 2, 1933 ²	18th General Assembly.....	4	Feb. 20, 1934	Apr. 15, 1937
June 1, 1937	19th General Assembly.....	5	Oct. 26, 1937	July 22, 1941
Oct. 21, 1941	20th General Assembly.....	4	Dec. 4, 1941	Aug. 31, 1945
Oct. 25, 1945	21st General Assembly.....	5	Feb. 21, 1946	Apr. 16, 1949
June 15, 1949	22nd General Assembly.....	³	Feb. 14, 1950	³

¹ The Ministries from 1933-52 were: 22nd Ministry, sworn in Nov. 15, 1933, under the leadership of Hon. T. D. Pattullo; 23rd Ministry, sworn in Dec. 10, 1941, under the leadership of Hon. John Hart; 24th Ministry, sworn in Dec. 29, 1947, under the leadership of Hon. B. I. Johnson. ² Owing to the death of a candidate, polling day was delayed in the Electoral Districts of Vancouver Centre and Victoria City until Nov. 27, 1933. ³ Life of Legislature not expired at Mar. 31, 1952.

Twenty-Fourth Ministry

(Party standing at latest General Election, June 15, 1949: 39 Coalition, 7 Co-operative Commonwealth Federation, 1 Independent and 1 Labour.)

NOTE.—See headnote to Table 15.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier and President of the Council and Minister of Finance...	HON. BYRON INGEMAR JOHNSON...	Dec. 29, 1947	Dec. 29, 1947
Provincial Secretary.....	HON. WILLIAM THOMAS STRAITH...	Dec. 29, 1947	May 3, 1950
Attorney General.....	HON. GORDON SYLVESTER WISMER	July 5, 1937	Apr. 4, 1946
Minister of Lands and Forests and Minister of Public Works.	HON. EDWARD TOURTELLOTTE KENNEY.....	Nov. 8, 1944	Apr. 5, 1945
Minister of Agriculture, Minister of Railways and Minister of Fisheries	HON. HENRY ROBSON BOWMAN...	July 21, 1949	July 21, 1949
Minister of Labour and Minister of Mines.....	HON. JOHN HENRY CATES.....	July 21, 1949	July 21, 1949
Minister of Education.....	HON. WILLIAM THOMAS STRAITH...	Dec. 29, 1947	Dec. 29, 1947
Minister of Health and Welfare, Minister of Municipal Affairs and Minister of Trade and Industry.	HON. ALEXANDER DOUGLAS TURNBULL.....	May 3, 1950	May 3, 1950

Subsection 11.—Yukon and the Northwest Territories

Yukon Territory.—The Yukon Act provides for a local government composed of a Chief Executive, styled Commissioner, who is appointed by the Governor in Council, and an elective Territorial Council of three members having a three-year tenure of office.* The Yukon Territorial Council performs much the same functions as do the Provincial Governments. The Commissioner is the counterpart of a Provincial Cabinet and the three members of the Territorial Council are the counterpart of a Provincial Legislature. The seat of local government is at Dawson, but the Commissioner acts under instructions from the Governor in Council or the Minister of Resources and Development at Ottawa.

COMMISSIONER

FRED FRASER..... Oct. 15, 1951

TERRITORIAL COUNCIL

(Members elected 1949, for three years)

Dawson District..... CHARLES J. LELIÈVRE

Whitehorse District..... R. GORDON LEE

Mayo District..... ERNEST J. CORP

* A 1951 amendment to the Yukon Act (15 Geo. VI c. 23) proclaimed in August 1952, provides for five elective members on the Council.

Northwest Territories.—The Government of the Northwest Territories is vested in a Commissioner, assisted by a Council composed of eight members one of whom is Deputy Commissioner. Five of the members are appointed by the Governor in Council and three are elected to represent electoral districts in the Mackenzie District. The administration of the various Acts, Ordinances and Regulations pertaining to the Northwest Territories is supervised by the Director of the Northern Administration and Lands Branch of the Department of Resources and Development. The seat of government is at Ottawa. The Council meets once a year at Ottawa and once a year at a point within the Territories. The First Session of this partially elected eight-member Council of the Northwest Territories was held at Yellowknife on Dec. 10, 1951.

TERRITORIAL COUNCIL (as at Mar. 31, 1952)

Commissioner	MAJOR-GENERAL HUGH A. YOUNG
Members of the Council—	
Appointed.....	FRANK J. G. CUNNINGHAM (Deputy Commissioner) LOUIS C. AUDETTE, WILLIAM I. CLEMENTS, DONALD M. MACKAY, and LEONARD H. NICHOLSON
Elected.....	JAMES BRODIE, FRANK CARMICHAEL, and MERVIN HARDIE
Officers of the Council—	
Secretary.....	ROBERT BOUCHARD
Legal Adviser.....	WM. NASON

Section 3.—Municipal Government*

The earliest local government in Canada was carried out by the seigneurs of New France who bore, along with military command and the administration of justice, the responsibilities of appointing justices of the peace and clerks of roads. Some of these officers were soon replaced by a 'syndic' elected by the people, the first in 1644, though a mayor and two aldermen had held office briefly in the City of Quebec in 1643. However, the syndics fell into disuse, and such powers were delegated by the Governor to officials. The City of Quebec was incorporated in 1832, and a system of local government for the Province, decreed in 1840, was remodelled by Acts of 1845, 1847, 1850 and 1860.

In the Atlantic Provinces, Saint John, N.B., had attained the distinction of becoming Canada's first incorporated city in 1785. Incorporation of Halifax, N.S., came in 1841 and Charlottetown, P.E.I., in 1855. In Newfoundland, St. John's was created a town in 1888.

The Ontario Parish and Town Officers Act of 1793 provided for an annual meeting in a parish or township to appoint local officers responsible to Parliament and the courts and the meetings had no law-making powers. Brockville, in 1832, gained some local powers from the Governor in Council which had previously been exercised through the courts. In 1834, York was incorporated as the self-governing City of Toronto. The Municipal Act of 1849 became the foundation of the local government in Ontario and later provided a model for the western provinces. Subsequently, Acts have been passed in all provinces governing aspects of municipal incorporation, powers and duties. Constitutional provision that jurisdiction over municipal affairs would rest with the provinces has resulted, quite naturally, in

* Prepared in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

dissimilarity in the organization of local government across the country. This stems not only from the difference in beginnings and subsequent independent growth in each province, but also from variations in requirements arising out of geographical and population differences.

The situation remains in a state of flux, with constant amendment of provincial Acts and charters in an attempt to solve old problems and to meet new ones. Just as the call for new and additional services has enlarged the scope of federal and provincial activities, the municipalities have had to assume responsibilities unheard of a few decades ago, or considered beyond their sphere of activity. As a result, amendments to Acts have varied from those enlarging the powers and the boundaries of municipalities, to those establishing closer provincial control and greater financial aid.

An outline of municipal organization at the end of 1951 in each of the provinces of Canada is given in the following paragraphs.*

Newfoundland.—Newfoundland has only one city, St. John's. The remainder of the population is mostly dispersed in small settlements along the coast, and only since 1937 have a few of the larger of these been set up individually with local councils as towns or, where two or three are close together, as rural districts (30 in 1951). These latter are not rural municipalities but merely towns consisting of two or more settlements. Local affairs in the remainder of the Province are administered by the Provincial Government. In 1949 the Local Government Act was passed to facilitate incorporations.

Prince Edward Island.—The City of Charlottetown and seven towns, all incorporated by special Acts, comprise the total municipal organization in Prince Edward Island. They include less than one-half of one percent of its total area and only one-quarter of its population. The remainder of the population is not organized municipally, as the three counties are purely provincial administrative units.

Nova Scotia.—Municipal organization in Nova Scotia covers the whole of the Province. Halifax and Sydney are the only cities and they operate under special charters, the latter also governed by some special legislation. Towns, which number 40, operate under the Town Incorporation Act. There are no municipalities incorporated as villages. Cities and towns are independent of counties. The rural area is divided into 18 counties which, in themselves, do not represent units of local government. However, 12 of these counties each comprise one municipality, and the other six, two municipalities each, making a total of 24 rural municipalities.

New Brunswick.—The Province is divided into 15 counties which are incorporated municipalities and have direct powers of local self-government in the rural areas. In effect, therefore, they are rural municipalities. In most cases certain of their powers apply in both rural and urban municipalities. The three cities of Saint John, Fredericton and Moncton have special charters, and the 19 towns operate under the Towns Incorporation Act. There are also four villages and 37 local improvement districts.

Quebec.—Municipal divisions in Quebec embrace the more thickly settled areas comprising about one-third of the Province, the remainder being governed by the Province as 'territories'. The organized area is divided into 76 county municipi-

* Municipalities are summarized by type of organization on p. 80.

palities, which are divided again into local municipalities under the Municipal Code and designated as village, township or parish municipalities or simply as municipalities. The counties, as such, have no direct powers of taxation. Funds to finance the services falling within their jurisdiction are provided by the municipalities forming part thereof. Parts of some counties are not yet organized into incorporated units of local government, being in outlying districts with little or no population. There are 331 villages and 1,109 townships and parishes. A small number of these are independent of the counties in which they are located. Of the 34 cities, a few have special charters. The remainder, along with the 132 towns, are governed by the Cities and Towns Act and numerous special Acts.

Ontario.—Slightly more than one-tenth of the area of Ontario is municipally organized, the remainder being governed entirely by the Provincial Government. The older section of the Province is divided into 43 counties, five of which are united with others for administrative purposes. Although incorporated municipalities, each county is comprised of the towns, villages and townships situated within its borders, which provide its revenues. There are 29 cities, 149 towns, 155 villages, 572 townships and 16 improvement districts. Some of each are located in the northern districts of the Province, which are not organized into counties.

Manitoba.—Only the southern and settled section of Manitoba, comprising less than one-eighth of the area, is organized for local self-government. As in the other three western provinces, there is no county organization and all municipalities are independent, except of provincial control. There are four cities, three with special charters and one governed by a number of special Acts. General Acts govern the 33 towns, 37 villages, 109 rural municipalities and five suburban municipalities. An Act of 1944 (amended January 1945) authorizes organization of local government districts in unorganized or disorganized territory.

Saskatchewan.—All municipalities in Saskatchewan derive their powers from general Acts that are designated with the name of the type of municipality. There are eight cities, 90 towns, 388 villages and 299 rural municipalities. The area so organized consists of most of the southern two-fifths of the Province. The remainder of this portion is administered for local purposes by the Province in unincorporated local improvement districts. The northern three-fifths is sparsely populated and without local government.

Alberta.—In Alberta there are cities, towns, villages, and rural municipalities known as municipal districts. The latter three classes come under general Acts. Until 1951 each of the seven cities had its own charter, but these have been superseded by the City Act of 1951. There are 69 towns, 140 villages and 54 municipal districts, but less than one-fifth of the Province is so organized. There are also some unincorporated improvement districts administered by the Province in less densely settled areas.

British Columbia.—British Columbia has less than 0.5 p.c. of its area organized into municipalities. Additional small areas have sufficient population to require administration of local activities by the Provincial Government. There are 35 cities, 41 villages and 28 districts. The latter are chiefly rural municipalities, except for those adjacent to the principal cities of Victoria and Vancouver, which are largely urban in character. It should be emphasized, however, that the application

of the name "city" is somewhat different from the commonly accepted meaning in that several of them have populations of less than 1,000 and perhaps one-half or more would not normally be incorporated as cities in any other province.

24.—Municipalities, by Type of Organization and by Provinces, as at Dec. 31, 1951

Province	Cities	Towns	Villages	Total Urban	Rural Municipalities	Total Local Municipalities	Counties	Total Incorporated Municipalities
	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland.....	1	30 ¹	—	31	—	31	—	31
P.E. Island.....	1	7	—	8	—	8	—	8
Nova Scotia.....	2	40	—	42	24	66	—	66
New Brunswick...	3	19	4	26	15 ²	41	—	41
Quebec.....	34	132	331	497	1,109	1,606	76	1,682
Ontario.....	29	149	155	333	588 ³	921	38	959
Manitoba.....	4	33	37	74	114 ⁴	188	—	188
Saskatchewan.....	8	90	388	486	299 ⁵	785	—	785
Alberta.....	7	69	140	216	54 ⁶	270	3	273
British Columbia.	35	—	41	76	28	104	—	104
Totals.....	124	569	1,096	1,789	2,231	4,020	117	4,137

¹ Includes 26 towns and 4 rural districts.

² Does not include 37 local improvement districts.

³ Includes 16 incorporated local improvement districts.

⁴ Includes 5 units of self-government officially

known as suburban municipalities. Does not include local government districts.

⁵ Does not include

21 local improvement districts.

⁶ Does not include 56 improvement districts.

Section 4.—Federal and Provincial Royal Commissions

Federal Royal Commissions.*—Royal Commissions established in 1951 are reported here, this list being in continuance of those in previous Year Books beginning with the 1940 edition, pp. 1108-1110:—

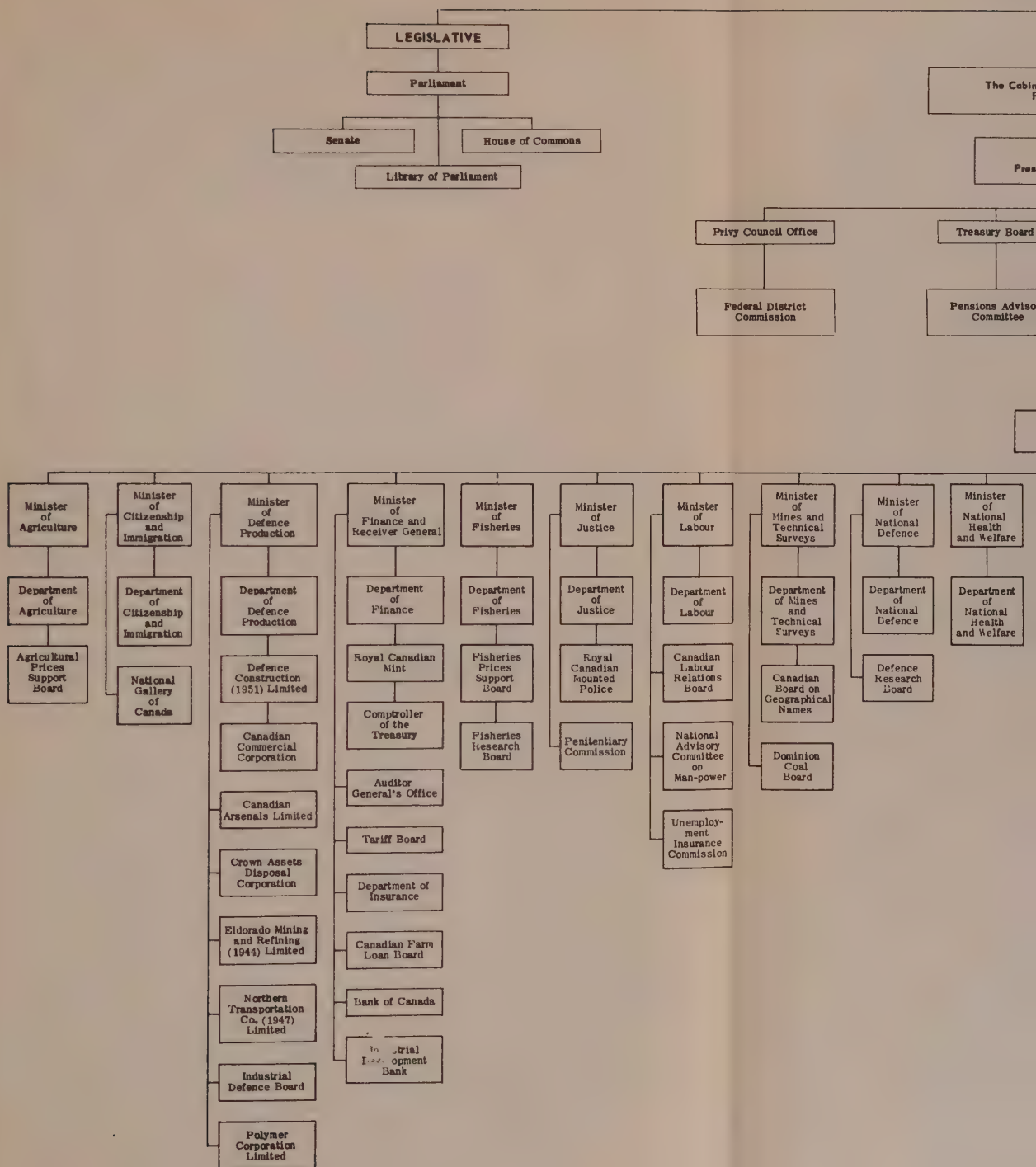
Royal Commission appointed to inquire into and report upon claims arising out of World War II, constituted by Order in Council of July 31, 1951 (P.C. 3951). Commissioner: The Right Honourable J. L. Ilsley.

Royal Commission appointed to inquire into and report upon the proposed South Saskatchewan River project, constituted by Order in Council of Aug. 24, 1951 (P.C. 4435). Commissioners: Dr. T. H. Hogg, Mr. G. A. Gaherty and Dr. John A. Widtsoe.

Provincial Royal Commissions.—Only those Royal Commissions established in 1951 are reported here, this list being in continuance of those in previous Year Books beginning with the 1948-49 edition, pp. 1222-1223:—

Newfoundland.—Royal Commission appointed to inquire into and report upon the prices paid or offered to fishermen and the returns received by merchants and exporters for fish production in 1950 and as to whether prices paid or offered to fishermen were fair and just in relation to the returns received by merchants and exporters in respect of such fish. Feb. 17, 1951. Commissioner: Bruce Bolton Feather.

* Commissions constituted under Part I of the Federal Inquiries Act.



GOVERNOR GENERAL

EXECUTIVE

- A Committee of the Queen's Privy Council for Canada

Prime Minister and President of the Privy Council

Committee on Scientific and Industrial Research

National Research Council

Atomic Energy Control Board

JUDICIAL

Supreme Court of Canada

Exchequer Court of Canada

MINISTRIES

Minister of National Revenue

Department of National Revenue

Income Tax Appeal Board

Canadian Broadcasting Corporation

Minister of Public Works

Department of Public Works

Minister of Resources and Development

Department of Resources and Development

National Museum of Canada

Canadian Government Travel Bureau

Northwest Territories Power Commission

Northwest Territories Council

National Film Board

Central Mortgage and Housing Corporation

Eastern Rockies Forest Conservation Board

National Battlefields Commission

Historic Sites and Monuments Board

Advisory Board on Wildlife Protection

Minister of Trade and Commerce

Department of Trade and Commerce

Dominion Bureau of Statistics

Export Credits Insurance Corporation

Canadian Wheat Board

Board of Grain Commissioners

Trans-Canada Airlines

Canadian Government Exhibition Commission

Minister of Transport

Department of Transport

Board of Transport Commissioners for Canada

Canadian Maritime Commission

Air Transport Board

National Harbours Board

Canadian National Railways

Canadian National West Indies Steamships

St. Lawrence Seaway Authority

Steamship Inspection Board

Canadian Overseas Telecommunication Corporation

Minister of Veterans Affairs

Department of Veterans Affairs

Canadian Pensions Commission

War Veterans Allowance Board

Army Benevolent Fund Board

Canadian Battlefields Memorial Commission

Postmaster General

Post Office Department

Secretary of State for External Affairs

Department of External Affairs

Secretary of State and Registrar General of Canada

Secretary of State Department

Patents and Copyright Office

Public Archives

Department of Public Printing and Stationery

Chief Electoral Officer

Civil Service Commission

Minister Without Portfolio and Leader of the Government in the Senate

British Columbia.—Royal Commission appointed to inquire into the circumstances of the non-admission of Mrs. Donald Ritchie into hospital and the subsequent loss of her unborn child. Also to inquire into the activating motives of persons and publicity surrounding these circumstances. Apr. 19, 1951. Commissioner: The Honourable H. S. Wood.

Royal Commission to inquire into all circumstances surrounding the incarceration at time of arrest and transportation from Victoria to Oakalla Farm of Daniel LeRoy Sanger. Oct. 23, 1951. Commissioner: His Honour Judge Herbert Howard Shandley.

PART III.—ADMINISTRATIVE FUNCTIONS OF THE FEDERAL GOVERNMENT

Section 1.—Departments, Boards, Commissions, etc.

The following paragraphs indicate the functions of the various departments of Government and the Special Boards and Commissions in connection with the work of government.

While it is not possible, owing to the limitations of space in the Year Book, to enumerate the details of each service or the divisions or sections of all the departments, the main branches are given along with those services that differ in some quality from the larger class of subjects handled by a department.

Department of Agriculture.—This Department was established in 1867 (30 Vict., c.53) and conducts the concerns of all phases of agriculture. Research and experimentation are carried out by the Science Service and the Experimental Farms Service; the maintenance of standards and protection of products by the Production Service and Marketing Service; reclamation and development by the Prairie Farm Rehabilitation Administration and the Maritime Marshland Rehabilitation Administration; while security and price stability policies are administered under the Prairie Farm Assistance Administration and the Agricultural Prices Support Board. The results of work in these various fields and information on the policies of the Department in general are made available to the public through the Information Service. For further details and statistics, see Chapter X.

The Canadian Broadcasting Corporation.—The Canadian Broadcasting Act, 1936, provides that there shall be a Corporation, to be known as the Canadian Broadcasting Corporation, which shall consist of a Board of nine Governors appointed by the Governor in Council and chosen to give representation to the principal geographical divisions of Canada. The Board of Governors determines CBC policy, and the Chairman of the Board is required to devote the whole of his time to the performance of his duties under the Act.

The General Manager is the Chief Executive of the Corporation and directs the operations and activities of the Corporation as well as the application of CBC policy as determined by the Board of Governors. Under the General Manager the organization of the CBC consists of the following principal divisions: Program, International Service, Engineering, Commercial, Press and Information, Broadcast Regulations, Station Relations, Personnel and Administration, and Treasury. Regional Representatives are appointed for Newfoundland, the Maritimes, the Prairies and British Columbia.

The Corporation reports to a Minister of the Crown (at present the Minister of National Revenue) who is responsible for dealing with CBC operations when under consideration in Parliament. For further details, see Chapters VIII and XIX.

The Department of Citizenship and Immigration.—This Department came into existence on Jan. 18, 1950, under the Minister of Citizenship and Immigration. It comprises the Immigration Branch, the Indian Affairs Branch, the Canadian Citizenship Branch and the Canadian Citizenship Registration Branch.

The Canadian Citizenship Branch works closely with provincial departments of education, national organizations and societies in the co-ordination of citizenship training programs and in preparation and distribution of material on Canadian subjects to the foreign-language press in Canada.

The Registration Branch administers the Canadian Citizenship Act.

The Immigration Branch encourages immigration and has established a Settlement Service and Field and Inspection Services overseas to screen immigrants before arrival in Canada. The Department has boards of inquiry in Atlantic and Pacific districts for deportation of undesirables, also Field and Inspection Services for examination of ships' crews.

The activities of the Indian Affairs Branch include management of Indian land and reserves, trust funds, welfare projects, relief, family allowances, education, descent of property, rehabilitation of Indian veterans on reserves, Indian treaty obligations, enfranchisement of Indians, and other Indian affairs. Its organization consists of a headquarters office at Ottawa, a regional supervisory staff, and 91 local agencies in the field, each agency being responsible for one or more reserves and bands.

The National Gallery of Canada is also under the jurisdiction of the Minister of Citizenship and Immigration. It was transferred from the administration of the Minister of Public Works in September 1951, and will work toward the building of Canadian citizenship through the encouragement of cultural activities among young persons and immigrants. *See also Chapter IV.*

The Civil Service Commission.—The Civil Service Commission of Canada dates from the Civil Service Act of 1903. Under this Act the Commission was given the responsibility of applying, as far as possible, the principle of appointment by merit in filling permanent positions within departmental headquarters positions at Ottawa, termed the "inside service".

The Civil Service Act of 1918 extended the competitive system of appointments to cover the "outside" as well as the "inside" service and temporary as well as permanent appointments. It made the Commission responsible for establishing a system of organization and classification that would secure uniformity in the staffing of the various departments and in the salaries paid for work of equal levels of difficulty and responsibility.

The jurisdiction of the Commission now extends to all departments of the Government and to a large number of boards and commissions, exclusive, however, of Crown corporations or such agencies as the Bank of Canada, the National Film Board, the National Harbours Board and the National Research Council. *See Part IV of this Chapter, pp. 93-101, for further details and statistics.*

The Civil Service Commission consists of three members, one of whom serves as Chairman. Each member of the Commission is appointed by the Governor in Council for a term of 10 years, and each has the rank and standing of a deputy head. The Commission has a staff of approximately 530 persons working under its direction and located in the headquarters office at Ottawa and in district offices at St. John's, Nfld., Halifax, N.S., Saint John, N.B., Montreal, Que., Toronto, Ont., Winnipeg, Man., Regina, Sask., Edmonton, Alta., and Vancouver, B.C.

The Department of Defence Production.—The Department of Defence Production was established on Apr. 1, 1951, under the provisions of the Defence Production Act, 1951, which gave the Department a statutory life of five years. Under the Defence Production Act the powers, duties and functions that were vested in the Minister of Trade and Commerce pursuant to the Department of Munitions and Supply Act, 1939, and the Defence Supplies Act, 1950, were transferred to the Minister of Defence Production. The Defence Production Act repealed the Essential Materials (Defence) Act, 1950-51.

Briefly, its task is to co-ordinate the effort required of the Canadian economy in producing armaments necessary to implement the terms of the North Atlantic Treaty and to co-ordinate the production and purchasing of the requirements of the Armed Forces. The three main branches are the Production Branch, the Materials Branch and the General Purchasing Branch. Supporting them are various administrative and service units such as the Economics and Statistics, Legal, Administration, and Comptrollers' Branches, Financial Adviser, etc.

The Defence Production Act, Sect. 9, transfers the duties previously performed by the Minister of Trade and Commerce, in relation to the following Crown companies, to the Minister of Defence Production: Canadian Arsenals Limited, Crown Assets Disposal Corporation, Defence Construction (1951) Limited, Polymer Corporation Limited, Eldorado Mining and Refining (1944) Limited, Northern Transportation Company (1947), and Canadian Commercial Corporation.

The Dominion Bureau of Statistics.—The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43). In 1948, this statute, which had been consolidated as the Statistics Act (R.S.C. 1927, c. 190), was repealed and replaced by the Statistics Act (11-12 Geo. VI, c. 45).

The policy of the Dominion Bureau of Statistics is to compile, analyze and publish statistical information relative to the commercial, industrial, financial, social and general condition of the people and to conduct a census of population and agriculture of Canada at ten-year intervals. The Bureau reports to Parliament through the Minister of Trade and Commerce.

Further details of the work of the Dominion Bureau of Statistics are given in Chapter XXVIII.

The Department of External Affairs.—The main function of this Department is the protection and advancement of Canadian interests abroad.

The Department is headed by the Secretary of State for External Affairs. At the head of the staff is the Under-Secretary of State for External Affairs, with a Deputy Under-Secretary and three Assistant Under-Secretaries. They are assisted by Foreign Service Officers, formally designated Counsellors and First, Second and Third Secretaries.

The work of the Department at Ottawa is carried on through 13 divisions. The three geographical divisions are the Commonwealth, the European and the American and Far Eastern. The seven functional Divisions are: Consular, Defence Liaison, Economic, Information, Legal, Protocol, and United Nations. The three "housekeeping" divisions are Establishments and Organization, Finance, and Personnel. There are two related special sections, Supplies and Properties, and International Conferences. The archives and departmental library are incorporated in a Historical Research and Reports Section and a Press Office arranges press conferences and issues press releases.

The Federal District Commission.—This Commission had its genesis in the Ottawa Improvement Commission, established by Parliament in 1899 to improve and beautify the National Capital by the development and construction of parks and driveways and to co-operate with the City of Ottawa in local improvement and conservation. Its membership is honorary in character and appointed by the Governor in Council, and it reports to the Prime Minister. In 1927 the organization's name was changed to the Federal District Commission, its scope of operations widened to include adjacent areas, and its membership increased to ten. Under the F.D.C. Act the mayors of Ottawa and Hull are included in its membership.

The Commission maintains the grounds of all federal buildings in the National Capital area and landscapes the grounds of new government buildings. In the Ottawa-Hull area (exclusive of Gatineau Park) where it administers 1,878 acres, it has developed 18 parks and 22 miles of scenic driveways.

In 1946 the Commission became the federal agency responsible for carrying out the National Capital Plan. The membership was further increased to permit the appointment of a commissioner resident in each of the provinces and a separate honorary committee was established by the Commission to advise on the development of Gatineau Park. The National Capital Fund, to which Parliament has made annual grants of \$2,500,000 since its inception in 1948, was made available to the Commission to execute the work of the National Capital Plan, and a National Capital Planning Committee was appointed to act as a permanent honorary advisory body to the Commission on the implementation of the Plan. See Chapter I, pp. 31-33, for a brief account of the Commission's work on the National Capital Plan.

The Department of Finance.—The Department of Finance, created in June 1868, is under the authority of the Minister of Finance. The Department is responsible for the financial administration of Canada. It is responsible for the raising of the money required for the various governmental activities by way of taxation or borrowing. The Comptroller of the Treasury, an officer of the Department, is responsible for all Government disbursements.

The Department has an International Economic Relations Division, an Economic Policy Division, Superannuation Branch, Farm Improvement Loans Division, Consumer Credit Division and a Municipal Grants Division. The Royal Canadian Mint is a branch of the Department. The Inspector General of Banks is an officer of the Department.

The Tariff Board and the Canadian Farm Loan Board are responsible to the Minister of Finance.

The Department of Fisheries.—The Department of Fisheries was first organized under a Minister of Fisheries in 1930. Prior to that the federal fisheries services were maintained by the former Department of Marine and Fisheries, established in 1868. The provinces, under various arrangements, have certain administrative responsibilities in the fisheries but the legislative authority for the regulations of coastal and fresh-water fisheries are now with the Federal Department of Fisheries.

The work of the Department includes: conservation and development of the fisheries through the enforcement of fishing regulations, the operation of fish-culture establishments, management and improvement of spawning streams and control of predators; inspection of fish products for quality control and the encouragement of industrial development; promotion of the greatest utilization of fishery products and a proper public understanding of the resource and the industry.

Agencies connected with the Department are the Fisheries Prices Support Board and the Fisheries Research Board of Canada. The Department is also represented on the International Pacific Salmon Fisheries Commission, the International Fisheries (Hialibut) Commission and the International Northwest Atlantic Fisheries Commission.

For further details and statistics of the fisheries, see Chapter XIV.

The Department of Insurance.—The Minister of Finance is responsible for the Department of Insurance which originated in 1875. Under the Superintendent of Insurance, the Department administers the statutes of Canada applicable to: insurance, trust and loan companies incorporated by the Parliament of Canada; provincially incorporated insurance companies registered with the Department; British and foreign insurance companies operating in Canada; small loans companies and money-lenders; and Civil Service insurance.

Under the relevant provincial statutes the Department's examiners examine provincial trust companies in the Provinces of Manitoba and New Brunswick and loan and trust companies in the Province of Nova Scotia.

A Fire Prevention Branch was organized in 1919 with responsibility for the administration of Sect. 515 of the Criminal Code. It maintains fire-loss records, makes inspections, reports on fire-prevention legislation and protection methods and endeavours to extend and co-ordinate fire-prevention work in Canada. *See also Chapter XXVI.*

The Department of Justice.—This Department provides legal services to the Government and the various Government departments, including preparing and settling government legislation, settling instruments issued under the Great Seal, regulating and conducting litigation for or against the Crown, superintending the acquisition of property and prosecutions under federal legislation other than the Criminal Code, administers federal statutes dealing with legal matters and provides administration services for the Supreme Court of Canada and the Exchequer Court.

The Department also superintends the penitentiaries and administers the prison system of Canada.

The Department of Labour.—The Department of Labour was established in 1900 by Act of Parliament (63-64 Vict., c. 24). The Department administers, under the Minister of Labour, legislation dealing with: industrial relations, investigation of disputes, etc.; the regulation of fair wages and hours of labour; government annuities; government employee compensation; merchant seamen compensation; vocational training; publication of the *Labour Gazette*, as well as bulletins of information on industrial and related subjects.

The Unemployment Insurance Commission and National Employment Service is also under the direction of the Minister of Labour. The Canada Labour Relations Board and the National Advisory Committee on Manpower also act on behalf of the Minister of Labour. The Department is also the official liaison agency between the Canadian Government and the International Labour Organization.

Further details and statistics of the Department of Labour will be found in Chapter XVIII.

The Department of Mines and Technical Surveys.—This Department was created by an Act of Parliament (13 Geo. VI, c. 17) which received Royal Assent on Dec. 10, 1949. Its establishment resulted from the reorganization of certain former departments into an integrated organization whose primary function is to provide technological assistance in the development of Canada's mineral resources through investigations, studies and research in the fields of geology, mineral dressing and metallurgy, and topographic, geodetic and other surveys. The Department is under the Minister of Mines and Technical Surveys and is divided into five branches, namely: the Surveys and Mapping Branch, the Geological Survey of Canada, the Mines Branch, the Dominion Observatories and the Geographical Branch.

The Department also administers the Explosives Act which regulates manufacture, testing, sale, storage and importation of explosives, and the Emergency Gold Mining Assistance Act which provides cost-aid to the gold industry.

Boards and Commissions are: Canadian Board on Geographical Names; Dominion Coal Board; Board of Examiners for Dominion Land Surveyors; International Boundary Commission.

For further details and statistics see Chapter XII.

The Department of National Defence.—Created on Jan. 1, 1923, by the National Defence Act, 1922, the Department of National Defence was originally an amalgamation of the Department of Militia and Defence, the Naval Service and the Air Board.

In 1940, the Department of National Defence was separated into three departments, one for each of the Armed Services, and continued under this organization until the cessation of hostilities. In order to afford the maximum possible degree of co-ordination, the three Services were again brought into one departmental organization in 1946.

In 1947, the Defence Research Board was formed to carry out research projects for defence. It is responsible to the Minister of National Defence for this function and for advising him on the effect of scientific, technical and other research on national defence.

For further details and statistics see Chapter XXVII.

The National Film Board.—The National Film Act, 1950, provides for a Board of Governors of nine members—a Government Film Commissioner, appointed by the Governor in Council, who is Chairman of the Board, three members from the public service of Canada and five members from outside the public service. The Board reports to Parliament through a designated Minister of the Crown (at present the Minister of Resources and Development). The Board is responsible for advising the Governor in Council on film activities and is authorized to produce and distribute films in the national interest and, in particular, films "designed to interpret Canada to Canadians and to other nations".

For further details see Chapters VIII and XXVIII.

The National Gallery.—The National Gallery was founded in 1880. By Act of Parliament (3-4 Geo. V, c. 33) it was placed under the management of a Board of Trustees appointed by the Governor General in Council, and is responsible to Parliament through a Minister of the Crown (at present the Minister of Citizenship and Immigration). The first charge of the National Gallery is the development and care of national art collections.

Other important services are the arrangement of loans and exhibitions from abroad and from its own holdings for showing in Canada and abroad, the promotion of good industrial design, and general extension work consisting of the distribution of reproductions for educational purposes, lectures, educational tours, publications, school broadcasts and art films. See also Chapter VIII.

Department of National Health and Welfare.—The Department of National Health and Welfare was established in October 1944. Under the Minister of National Health and Welfare, the Department, which is composed of three branches (Health, Welfare and Administration), is administered through the Deputy Ministers of National Health and National Welfare.

The Health Branch is divided into four directorates—Health Services, Health Insurance Studies, Food and Drugs, and Indian Health Services. The Welfare Branch is made up of the Directorate of Family Allowances and Old Age Security, the Old Age Pensions Division and the Physical Fitness Division. The Department is also responsible for federal civil defence planning, with the Civil Defence Co-ordinator reporting to both Deputy Ministers. The Administration Branch includes divisions where activities cover both health and welfare fields such as research, information, legal and library services as well as administrative, personnel and purchasing and supply services.

For further details and statistics, see Chapter VI.

The Department of National Revenue.—From Confederation until May 1918, Customs and Inland Revenue Acts were administered by separate departments, and after that date were amalgamated under one Minister as the Department of Customs and Inland Revenue. In 1921 the name was changed to the Department of Customs and Excise. In April 1924, collection of income taxes was placed under the Minister of National Revenue and under the Department of National Revenue Act, 1927, the Department became known as the Department of National Revenue.

Besides the assessment and collection of customs and excise duty, taxes and revenues and other services by ports and outports, the Department is responsible for income taxes and succession duties.

The Minister of National Revenue is responsible to Parliament for the Income Tax Appeal Board and the Canadian Broadcasting Corporation.

The National Museum of Canada.—The National Museum illustrates the natural history of Canada—its geology, biology and anthropology. It was formerly part of the Geological Survey which was founded in 1842 but was separated in 1920, and is now part of the Department of Resources and Development. The Museum carries out field investigations in botany, zoology, vertebrate palaeontology, archaeology and ethnology including studies of folk-lore and folk-songs, publishes the results of its research and carries out an extensive educational program. See also Chapter VIII.

The National Research Council.—In 1924 the Research Council Act was passed and, in 1928, laboratories for scientific research were established at Ottawa. The National Research Council now has laboratories for divisions of chemistry, building research, mechanical engineering, radio and electrical engineering, physics, applied biology and medical research, and also has workshop services. Until April 1952, the Council operated the atomic energy project at Chalk River, and its President was head of the Atomic Energy Control Board.

Processes and improvements developed by the Council are made available under licence to industry through a Crown company, Canadian Patents and Development, Limited, and any profits derived from the licensing arrangements are used for further research and development.

The Minister of Trade and Commerce, as Chairman of the Privy Council Committee on Scientific and Industrial Research, is responsible to Parliament for the National Research Council. See also Chapter VIII.

Post Office Department.—Operations of the Post Office Department under a Postmaster General include: air, land, steamboat and railway mail services; international and domestic mail; postage stamps, money orders and parcel post business. The Post Office also is responsible for the Post Office Savings Bank.

For statistics see Chapter XIX.

Department of Public Printing and Stationery.—This Department was established in 1886 and is in charge of the Queen's Printer and Controller of Stationery.

The Department is responsible for supplying all requirements of printing and stationery to and the audit of all accounts for advertising of Parliament and Departments of the Canadian Government; the free distribution and sale of all public documents or papers to the public; the publication of the Statutes of Canada, the *Canada Gazette*, and all departmental reports, papers, etc., required to be published by authority of the Governor General in Council.

The Department of Public Printing and Stationery is under the jurisdiction of the Secretary of State.

Public Archives.—The Public Archives was founded in 1872 and is administered by the Secretary of State. Its purpose is to assemble and make available to the public a comprehensive collection of historical source material relating to the history of Canada. Major emphasis is placed upon official records of the Government, and the personal papers of political leaders and other prominent figures. These are supplemented by copies of many records in the British and French archives that relate to Canada, a fine map collection, an historical library, and many prints, paintings and photographs.

Department of Public Works.—This Department was constituted in 1867 and is responsible for the management, charge and direction of the public works of Canada and, except as specifically provided in other Acts, attends to the construction and maintenance of public buildings, wharves, piers, roads and bridges and the undertaking of dredging. The Department maintains architectural and engineering staffs in each province in addition to the Administrative, Architectural, Engineering and Purchasing and Stores Branches at Ottawa.

Department of Resources and Development.—The Department of Resources and Development was established in January 1950, and comprises sections of the former Departments of Mines and Resources and Reconstruction and Supply. The Department is divided into five branches besides Administration Services: the National Parks Branch administers the National Parks of Canada, historic sites and federal interests in the conservation and protection of wildlife (see also Chapter I, pp. 23-36) and has charge of the National Museum of Canada (see Chapter VIII); the Engineering and Water Resources Branch has charge of federal interests in the trans-Canada highway, construction works for all other branches, the measure and record of stream flow, and the investigation of water-power resources; the Northern Administration and Lands Branch deals with business from the local government of the Northwest Territories and of Yukon Territory and administers lands, timber, minerals and other resources of the Territories; the Forestry Branch conducts investigations in the protection and utilization of the forest resources of Canada, maintains forest experiment stations and forest products laboratories and administers federal assistance to the provinces under the Canada Forestry Act (see also Chapter XI); the Canadian Government Travel Bureau promotes the tourist industry by encouraging tourist travel from abroad and interprovincial travel in Canada.

The Minister of Resources and Development is also responsible to Parliament for the National Film Board, the Central Mortgage and Housing Corporation (see Chapter XVII), the Eastern Rockies Forest Conservation Board, the Northwest Territories Power Commission, the National Battlefields Commission, the Historic Sites and Monuments Board, and the Advisory Board on Wildlife Protection.

Department of the Secretary of State.—The Department of the Secretary of State was constituted in its present form in 1873. The Secretary of State is the official spokesman of the Federal Government as well as the medium of communication between the Federal and Provincial Governments, all correspondence between the Governments being conducted through this Department with the Lieutenant-Governors. He is the custodian of the Great Seal of Canada and the Privy Seal of the Governor General as well as being the channel through which the general public may approach the Crown.

The Secretary of State is the Registrar General of Canada, registering all proclamations, commissions, licences, warrants, writs and other instruments issued under the Great Seal and certain instruments issued under the Privy Seal. He is responsible for the collection and tabling of parliamentary returns.

The Acts administered wholly or in part by this Department will be found at p. 91. The Secretary of State also deals with the organization and administration of the Office of the Custodian of Enemy Property. The Civil Service Commission (see p. 82), the Depart-

ment of Public Printing and Stationery (see p. 86), the Public Archives (see p. 86), and the Chief Electoral Office are under the jurisdiction of the Secretary of State, but the Chairman of the Civil Service Commission, the Queen's Printer, the Public Archivist and the Chief Electoral Officer each have the rank of a Deputy Minister.

The Department of the Secretary of State deals with correspondence concerning the Copyright Appeal Board, the Awards Co-ordination Committee, the Public Records Committee and the Inter-departmental Committee on the use of Parliament Hill.

Department of Trade and Commerce.—The Department of Trade and Commerce although authorized by Act of Parliament on June 23, 1887, did not come into operation until Dec. 5, 1892, by Order in Council. Prior to its creation assistance in the development of foreign trade was provided through the appointment of five Canadian Commercial Agents, serving on a part-time basis and responsible to the Minister of Finance. On Jan. 1, 1895, a Canadian Commercial Agent was appointed at Sydney, Australia, on a salary basis, and therefore became the first Canadian Government Trade Commissioner, in the present meaning of the term.

The Canadian Commercial Agency Service was renamed the Canadian Trade Commissioner Service in 1907. Fifty-one offices were maintained in 41 countries at the beginning of 1952, the majority of which were operated jointly by the Departments of Trade and Commerce and of External Affairs. In such instances, trade commissioners are given diplomatic status and are known as Commercial Counsellors or Commercial Secretaries.

The Department of Trade and Commerce was expanded in 1945 to provide a wide range of additional services to Canadian businessmen, and now comprises the following branches and divisions: Canadian Trade Commissioner Service; Commodities Branch, consisting of an Export Division, Import Division, Export and Import Permit Division and a Transportation and Communications Division; Agricultural Commodities Branch; Standards Branch; Capital Cost Allowance Division; Economics Division; Industrial Development Division; Information Division; International Trade Relations Division; Wheat and Grain Division; and the International Economic and Technical Co-operation Division; Canadian Government Exhibition Commission. The functions of these branches and divisions are set forth in Chapter XXI.

The following boards, bureaus, commissions and corporations are also responsible to the Minister of Trade and Commerce: National Research Council; Board of Grain Commissioners; Canadian Wheat Board; Dominion Bureau of Statistics; Export Credits Insurance Corporation; Trans-Canada Air Lines. Consult the Index for reference to these agencies.

The Department of Transport.—The Department of Transport was created on Nov. 2, 1936, from the former Departments of Marine, Railways and Canals and the Civil Aviation Branch of National Defence.

The work of the Department consists of four main services: marine, air, canals and railways. The work of the Marine Service includes aids to navigation, nautical services, marine agencies, steamship inspection and floating equipment and direct supervision over 300 public harbours; seven other harbours come under supervision of the Department but are administered by Commissions. Air Services cover the operation of civil aviation, meteorological and telecommunication divisions. The latter includes the administration and regulation of radio marine and radio aeronautical aids to navigation and communication by wire and by the Government telegraph and telephone. Canal Services has jurisdiction over the canals and canalized waterways of Canada. These include the main or primary canals on the St. Lawrence River and Great Lakes and a number of subsidiary or secondary canals.

Other services of the Department are in connection with the Government-owned companies: the Canadian National Railways, Hudson Bay Railway, Canadian Government Railway, Canadian National (West Indies) Steamship Service, the Prince Edward Island Ferry and Terminals, Trans-Canada Air Lines, and the Trans-Canada (Atlantic) Air Lines. See also Chapter XIX.

The Minister of Transport is responsible to Parliament for the following boards and commissions: the Air Transport Board; Board of Transport Commissioners; Canadian Maritime Commission; Steamship Inspection Board; and the National Harbours Board. The Minister is also responsible to Parliament for the Canadian Overseas Telecommunication Corporation, a Crown company created by Act of Parliament to operate all external telecommunication assets in Canada. For reference to these boards and commissions consult the Index.

Department of Veterans Affairs.—This Department, established in 1944, is concerned exclusively with the welfare of veterans and includes medical, dental and welfare services, land settlement and prosthetic services and insurance. The Veterans' Bureau assists veterans in the preparation and presentation of pension claims.

The Minister of Veterans Affairs is also responsible for the Canadian Pension Commission and the War Veterans' Allowance Board. The Department has administrative offices in all the larger cities. See also Chapter VI.

Section 2.—Acts Administered by Federal Departments*

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada

NOTE.—Two sessions of Parliament were held in each of the years 1939, 1949, 1950 and 1951. The Acts passed at the first session are indicated by (*) and those at the second session by (†). Copies of individual Acts of Parliament and amendments may be obtained from the Queen's Printer, Ottawa, at prices of from 10 cents to \$1.50 per copy according to number of pages. Where duplications of certain Acts appear in the list parts of these Acts are administered under the Departments given.

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
Agriculture— R.S.C. 1927	4 Department of Agriculture.	External Affairs— R.S.C. 1927 65	Department of External Affairs as amended.
	5 Pest Control Products as amended.	Finance—	
	6 Animal Contagious Diseases as amended.		Canadian National Railways Financing and Guarantee (Annual).
	25 Cold Storage as amended.		Appropriation (Annual).
	36 Criminal Code, Sect. 235, Race - Track Betting as amended.	R.S.C. 1927 14	Quebec Savings Banks as amended.
	45 Dairy Industry as amended.		16 Bills of Exchange as amended.
	47 Destructive Insect and Pest as amended.		24 Civil Service Superannuation as amended.
	61 Experimental Farm Stations as amended.		40 Currency as amended.
	69 Fertilizers as amended.		66 Canadian Farm Loan as amended.
	77 Meat and Canned Foods as amended.		71 Department of Finance and Treasury Board as amended.
	100 Inspection and Sale as amended.		102 Interest.
1933 26	Hay and Straw Inspection.		152 Pawnbrokers (not regularly administered by Department but under jurisdiction of Minister of Finance).
1935 23	Prairie Farm Rehabilitation as amended.		183 Savings Deposits Returns.
	62 Fruits, Vegetables and Honey.		184 Satisfied Securities (not regularly administered by Department but under jurisdiction of Minister of Finance).
1937 30	Feeding Stuffs as amended.		192 Provincial Subsidies.
40	Seeds as amended.		213 Winding-up (Insolvent Companies) as amended.
1939 13*	Cheese and Cheese Factory Improvement as amended.	1931 55	Tariff Board as amended.
	28* Agricultural Products Co-operative Marketing as amended.	1932 33	Gold Export as amended.
	34* Wheat Co-operative Marketing as amended.	1934 43	Bank of Canada as amended.
	47* Live Stock and Live Stock Products.	1935 52	Canadian Fishermen's Loan.
	50* Prairie Farm Assistance as amended.	1938 33	Municipal Improvements Assistance as amended.
1944 29	Agricultural Prices Support as amended.	1943 26	Farmers' Creditors Arrangement.
1945 24	Maple Products Industry.	1944 30	Bank.
1947 10	Agricultural Products (Annual) as amended.	41	Farm Improvement Loans as amended.
1948 61	Maritime Marshland Rehabilitation.	44	Industrial Development Bank as amended.
1949 28†	Live Stock Pedigree.	1946 53	Foreign Exchange Control as amended.
Auditor General— 1931 27	Consolidated Revenue and Audit as amended.	1947 58	Dominion - Provincial Tax Rental Agreements as amended.
		1950 3†	Consumer Credit (Temporary Provisions) as amended.
Citizenship and Immigration—		1951 12†	Financial Administration.
1927 37	St. Regis Indian Reservation.	46†	Canadian National Railways Refunding.
R.S.C. 1927 93	Immigration as amended.		
	94 Immigration Aid Societies.		
	98 Indian as amended.		
1934 29	Caghawaga Indian Reserve.		
1943 19	British Columbia Indian Reserves Mineral Resources.	Fisheries— R.S.C. 1927 43	Customs and Fisheries Protection (as far as it relates to fisheries).
1946 15	Canadian Citizenship as amended.		74 Deep Sea Fisheries.
1949 16†	Department of Citizenship and Immigration.		75 Northern Pacific Halibut Fishery Protection.

* Compiled from information supplied by the respective Departments. See Chap. XXVII, Part IV, for current legislation.

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada—continued

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
Fisheries—concl.		Justice—concl.	
R.S.C. 1927 77	Meat and Canned Foods, as amended, so far as it relates to fish and shellfish.	R.S.C. 1927 107	Solicitor General's.
140	Navigable Waters' Protection (in part).	123	Lord's Day as amended.
1930 10	Sockeye Salmon Fisheries (Convention).	127	Marriage and Divorce as amended.
21	Department of Fisheries.	158	Petition of Right as amended.
1932 42	Fisheries.	160	Royal Canadian Mounted Police as amended.
1937 31	Fisheries Research Board.	163	Prisons and Reformatories as amended.
36	Northern Pacific Halibut Fishery (Convention).	197	Ticket of Leave as amended.
1938 39	Pelagic Sealing (Convention).	1929 46	Juvenile Delinquents as amended.
1939 51*	Salt Fish Board.	62	Administration of Justice in the Yukon.
1944 42	Fisheries Prices Support.	1930 12	Criminal Procedure in Alberta.
1948 21	Pelagic Sealing (Provisional Agreement).	14	Divorce (Ontario).
1949 23†	Fish Inspection.	15	Divorce Jurisdiction.
		1934 31	Admiralty as amended.
		1937 4	British Columbia Divorce Appeals.
		1939 6*	Penitentiary as amended.
Insurance—		49*	Official Secrets as amended.
R.S.C. 1927 23	Civil Service Insurance.	28	Compensation (Defence).
29	Trust Companies as amended.	43	Treachery.
135	Money Lenders (under the jurisdiction of the Minister of Finance—the Act is not regularly administered by the Department of Insurance but is included here because of its indirect connection with the Small Loans legislation).	56	Judges as amended.
179	Special War Revenue, Part III as amended, relating to taxes on insurance premiums. Name changed to Excise Tax, c. 60, 1947.	1947 16	Continuation of Transitional Measures (in part).
213	Winding-up (Insurance) (in part).	1949 6*	Statute Law Amendment (Newfoundland).
1932 45	Department of Insurance.	71	Bankruptcy.
46	Canadian and British Insurance Companies as amended.		
47	Foreign Insurance Companies as amended.	Labour—	
1939 23*	Small Loans.	R.S.C. 1927 7	Government Annuities as amended.
		110	Conciliation and Labour.
Justice—		111	Labour Department as amended.
1927 51	Debts due to the Crown as amended.	128	White Phosphorous Matches as amended.
R.S.C. 1927 1	Interpretation as amended.	193	Technical Education Extension as amended.
26	Combines Investigation as amended.	59	Vocational Education.
34	Exchequer Court as amended.	1935 14	Weekly Rest in Industrial Undertakings.
35	Supreme Court as amended.	39	Fair Wages and Hours of Labour as amended.
36	Criminal Code as amended.	44	Minimum Wages.
37	Extradition.	63	Limitation of Hours of Work.
38	Identification of Criminals as amended.	1936 7	National Employment Commission as amended.
58	Escheats (under the jurisdiction of the Minister of Finance).	15, 46	Unemployment Relief and Assistance as amended.
59	Canada Evidence as amended.	1937 44	Unemployment and Agricultural Assistance (Annual).
64	Expropriation.	1939 35*	Youth Training.
81	Fugitive Offenders as amended.	1940 44	Unemployment Insurance as amended.
99	Inquiries as amended.	1942 34	Vocational Training Co-ordination as amended.
106	Department of Justice as amended.	1946 58	Merchant Seamen Compensation as amended.
		63	Reinstatement in Civil Employment as amended.
		1947 18	Government Employees Compensation as amended.
		1948 54	Industrial Relations and Disputes Investigation as amended.

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada—continued

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
Mines and Technical Surveys—		National Revenue—	
1946 7	Explosives as amended.	concl. 1940 2	War Exchange Conservation as amended.
1948 15	Emergency Gold Mining Assistance as amended.	14	Dominion Succession Duty as amended.
1949 17†	Department of Mines and Technical Surveys.	32	Excess Profits Tax as amended.
1951 4†	Canada Lands Surveys.	1943 21	United States Tax Convention as amended.
National Defence—		1946 7	Explosives.
R.S.C. 1927 133	Militia Pensions as amended.	26	Precious Metals Marking (in part).
1933 21	Visiting Forces (British Commonwealth).	38	Canada-United Kingdom Income Tax Agreement as amended.
1947 47	Visiting Forces (United States of America).	39	Succession Duty Agreement as amended.
1950 43*	National Defence.	1947 17	Export and Import Permits as amended.
2†	Canadian Forces.	1948 34	Canada-New Zealand Income Tax Agreement as amended.
National Health and Welfare—		52	Income Tax as amended.
1944 22	Department of National Health and Welfare as amended.	1951 42*	Canada-Sweden Income Tax Agreement.
National Health—		Post Office—	
R.S.C. 1927 76	Food and Drugs as amended.	R.S.C. 1927 179	Special War Revenue (in part) as amended (name changed to Excise Tax, c. 60, 1947).
91	Public Works Health as amended.	1951 57*	Post Office.
119	Leprosy as amended.	Public Archives—	
151	Proprietary or Patent Medicine as amended.	R.S.C. 1927 8	Public Archives.
168	Quarantine as amended.	Public Printing and Stationery—	
1929 49	Opium and Narcotic Drug as amended.	R.S.C. 1927 2	Publication of Statutes as amended.
1934 44	Canada Shipping (Part V, Sick Mariners and Marine Hospitals) as amended.	162	Public Printing and Stationery as amended.
Welfare—		Public Works—	
R.S.C. 1927 156	Old Age Pensions as amended.	R.S.C. 1927 64	Expropriation.
1943 29	National Physical Fitness as amended.	68	Ferries.
1944 40	Family Allowances as amended.	89	Government Harbours and Piers (Sect. 5).
1951 38*	Blind Persons.	140	Navigable Waters Protection, Part I.
55*	Old Age Assistance.	166	Public Works.
18†	Old Age Security.	167	Government Works Tolls.
National Revenue—		170	Railways (Sect. 248).
R.S.C. 1927 42	Customs as amended.	191	Dry Docks Subsidies.
43	Customs and Fisheries Protection (in part).	1930 47	Act Respecting Vehicular Traffic on Dominion Property.
44	Customs Tariff as amended.	1934 59	Public Works Construction.
63	Export as amended.	1950 48*	Prime Minister's Residence.
68	Ferries.	Resources and Development—	
76	Food and Drugs (in part) as amended.	R.S.C. 1908 57-58†	National Battlefields at Quebec as amended.
97	Income War Tax as amended (name changed to Income Tax).	R.S.C. 1927 87	Seed Grain.
137	Department of National Revenue as amended.	88	Seed Grain Sureties.
179	Special War Revenue (in part) as amended (name changed to Excise Tax, c. 60, 1947).	116	Railway Belt (in part) as amended.
1928 31	Importation of Intoxicating Liquors.		
1932 33	Gold Export (in part).		
52	Excise as amended.		

¹ The Minister of the Department of Resources and Development administers the National Film Act, 1950, c. 44, but the Board is not a unit of that Department.

² Not included in Revised Statutes of 1927.

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada—continued

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
Resources and Development— concl. R.S.C. 1927	118 Land Titles as amended. 124 Manitoba Supplementary Provisions. 130 Migratory Birds Convention as amended. 142 Northwest Territories as amended. 180 Saskatchewan and Alberta Roads. 210 Dominion Water Power as amended. 211 Railway Belt Water (in part) as amended. 215 Yukon as amended. 216 Yukon Placer Mining as amended. 217 Yukon Quartz Mining as amended. 1927 51 Respecting certain debts due the Crown. 1928 32 Lac Seul Conservation. 1929 62 Administration of Justice in Yukon Territory. 1930 3 Alberta Natural Resources (in part) as amended. 29 Manitoba Natural Resources (in part) as amended. 33 National Parks as amended. 37 Railway Belt and Peace River Block (in part). 41 Saskatchewan Natural Resources (in part) as amended. 1932 35 Refunds (Natural Resources). 55 Waterton Glacier International Peace Park. 1937 11 Home Improvement Loans Guarantee. 1938 49 National Housing ¹ as amended. 1939 33* Rainy Lake Watershed Emergency Control. 1940 17 Game Export as amended. 1945 15 Central Mortgage and Housing ¹ as amended. 1947 22 National Wild Life Week. 59 Eastern Rocky Mountain Forest Conservation. 1948 64 Northwest Territories Power Commission as amended. 1949 8† Canada Forestry as amended. 18† Department of Resources and Development. 1950 40† Trans-Canada Highway. 19* Public Lands Grants. 22* Territorial Lands. 44* National Film Board.	Secretary of State—concl. R.S.C. 1927	53 Dominion Elections as amended. 59 Canada Evidence as amended. 98 Indian (in part) as amended. 128 White Phosphorous Matches (in part) as amended. 129 Canada Medical. 142 Northwest Territories as amended. 155 Pension Fund Societies as amended. 164 Public Officers. 170 Railways as amended. 189 Department of State. 196 Canada Temperance. 197 Ticket of Leave as amended. 198 Timber Marking as amended. 201 Trade Mark and Design as amended. 202 Trade Unions. 215 Yukon as amended. 1929 55 Reparation Payment. 1932 38 Unfair Competition as amended. 1933 36 Companies Creditors Arrangement as amended. 1934 25 Translation Bureau as amended. 33 Companies as amended. 32 Patents as amended. 1935 41 Shop Cards Registration. 1938 22* Seals as amended. 1939 24 Trading with the Enemy (Transitional Powers). 1947 71 Italy, Rumania, Hungary and Finland Treaties of Peace. 1948 22* Territorial Lands. 50* Regulations. 1950 4* Defence Production.
Secretary of State—² R.S.C. 1927	19 Boards of Trade as amended. 32 Copyright as amended. 36 Criminal Code as amended. 48 Public Documents. 50 Dominion Controverted Elections as amended. 52 Disfranchising.	Trade and Commerce— R.S.C. 1927	54 Electricity and Fluid Exportation as amended. 82 Gas Inspection as amended. 177 Research Council as amended. 200 Department of Trade and Commerce. 208 Inland Water Freight Rates. 1928 22 Electricity Inspection as amended. 1930 5 Canada Grain as amended. 1935 53 Canadian Wheat Board as amended. 1939 31* Grain Futures as amended. 1944 39 Export Credits Insurance as amended. 1946 26 Precious Metals Marking as amended. 1947 17 Export and Import Permits as amended. 57 Dominion Coal Board as amended. 1948 45 Statistics. 1949 29† Maritime Coal Production Assistance.

¹ Administered by the Minister of Resources and Development through the Central Mortgage and Housing Corporation. ² The Secretary of State administers the Civil Service Commission Act, R.S.C. 1927, c. 22, with amendments, but the Commission is not a unit of that Department.

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada—concluded

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
Trade and Commerce—concl.		Transport—concl.	
1949 31†	National Trade Mark and True Labelling as amended.	1936 49	Water Carriage of Goods.
1950 36*	Electrical and Photometric Units.	1937 22	Canadian National Railways Capital Revision as amended.
1951 31*	Length and Mass Units.	28	Department of Transport Stores as amended.
36*	Weights and Measures.	43	Trans-Canada Air Lines as amended.
		1938 50	Radio as amended.
		53	Transport (Board of Transport Commissioners) as amended.
Transport—1		1939 12*	Carriage by Air as amended.
	Canadian National Railways Financing and Guarantee (Annual).	1945 25	National Emergency Transitional Powers as amended.
	Auditors for National Railways (Annual).	1947 42	Port Alberni Harbour Commissioners.
R.S.C. 1927 3	Aeronautics as amended.	52	Canadian Maritime Commission.
17	Bills of Lading.	1948 10	New Westminster Harbour Commissioners Refunding.
20	Bridges.	1949 20*	Pipe Lines.
29	Canadian National (West Indies) Steamship Company.	10†	Canadian Overseas Telecommunication Corporation as amended.
70	Three Rivers Harbours Commissioners.	1950 1†	Maintenance of Railway Operation.
79	Maritime Freight Rates as amended.		
89	Government Harbours and Piers as amended.		
122	Live Stock Shipping as amended.		
140	Navigable Waters Protection, Parts II and III as amended.		
170	Railway as amended.		
172	Canadian National Railways as amended.	Veterans Affairs—	
173	Government Railways.	R.S.C. 1927 157	Pension ² as amended.
174	Passenger Tickets.	188	Soldier Settlement as amended.
194	Telegraphs, Part III.	1936 47	Veterans' Assistance Commission as amended.
203	Government Vessels Discipline.	1942 33	Veterans' Land as amended.
208	Inland Waters Freight Rates.	1944 19	Department of Veterans Affairs as amended.
211	Railway Belt Water as amended.	49	Veterans' Insurance as amended.
214	United States Wreckers.	51	War Service Grants as amended.
1929 4	Canadian National Railways Pensions.	1945 35	Veterans' Rehabilitation as amended.
11	Canadian National Refunding as amended.	1946 34	Women's Royal Naval Services and the South African Military Nursing Service (Benefits).
12	Canadian National Montreal Terminals.	36	Allied Veterans Benefits.
48	Northern Alberta Railways as amended.	43	Civilian War Pensions and Allowances ² as amended.
1931 19-20	Beauharnois Light, Heat and Power Company as amended.	52	Fire Fighters War Service Benefits.
40	New Westminster Harbour Loan.	64	Special Operators War Service Benefits.
1933 33	Canadian National - Canadian Pacific as amended.	66	Supervisors War Service Benefits.
1934 44	Canada Shipping as amended.	75	War Veterans' Allowance ² as amended.
1936 24	Canadian Broadcasting as amended.	1951 59*	Returned Soldiers' Insurance.
34	Department of Transport as amended.	62*	Veterans Benefit.
42	National Harbours Board as amended.		

¹ The Canadian Broadcasting Act, 1936, c. 24, as amended, is administered by the Minister of Transport but the CBC is not a unit of that Department.

² The Pension Act and the Civilian War Pensions and Allowances Act are administered by the Canadian Pension Commission and the War Veterans' Allowance Act by the War Veterans' Allowance Board.

PART IV.—THE CIVIL SERVICE OF CANADA*

The Federal Civil Service comprises, in the widest sense, all servants of the Crown—other than those holding political or judicial office—who are employed in a civil capacity and whose remuneration is paid wholly and directly from moneys voted by Parliament. Collectively, they form the staffs of the various departments, commissions, boards, bureaux and other agencies of the Federal Government. Nearly every category of occupation is represented in the Civil Service. A few civil servants are appointed by either or both Houses of Parliament directly, a number by departments and other agencies in accordance with the provisions of certain statutes, generally with executive approval of the Governor in Council, and the remainder—by far the majority—are selected and appointed by the Civil Service Commission of Canada.

The Civil Service Commission, as the central personnel agency of the Federal Government, is the custodian of the "merit principle" in respect of both initial appointments and promotions. The steps by which the Commission, in its present form, came to be constituted is the record of Civil Service reform in Canada which began a year after Confederation and culminated in the passing of the Civil Service Act of 1918.

Recruitment.—The recruitment of civil servants is conducted by means of open competitive examination through which every citizen has the right to compete for positions in the service of his country.

Examinations are held periodically as the staff requirements of the public service dictate. Any Canadian citizen may apply for headquarters positions open at Ottawa, but applicants for local positions must be residents of the locality in which the vacancy occurs. Competitive examinations are announced through the press and through posters displayed on the public notice boards of post offices, offices of the National Employment Service, offices of the Civil Service Commission, public libraries and elsewhere. The examinations may be written, oral, a demonstration of skill, or any combination of these.

The names of persons successful in Civil Service examinations, arranged in order of rank, are recorded on eligible lists. Examination results are formally announced by publication in the *Canada Gazette* and each candidate—successful or unsuccessful—is advised of his standing. As required, appointments are made from the eligible lists, which usually remain valid for one year.

Statutory preference applicable to veterans of World War I and World War II has been extended to persons who have served in the Korean theatre of operations. Since 1918, upwards of 100,000 veterans have been appointed to the public service, of whom approximately 65,000 have been appointed within the past seven years. The 100,000 figure includes 10,000 disabled veterans who were accorded an additional preference in appointment.

In recent years, the Civil Service Commission has decentralized its operations and now has ten district offices and four sub-offices across the country. The Commission is granting an increasing measure of autonomy and responsibility to these offices to permit more efficient service to field agencies. They now conduct certain examinations that qualify for permanent as well as temporary employment.

* Text revised by M. M. Maclean, Secretary of the Civil Service Commission of Canada, and statistics prepared in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

Staff Training.—In 1947 the Commission set up a Staff Training Division to promote and guide a systematic service-wide training scheme. The training scheme, sponsored by the Commission, is a joint venture undertaken in co-operation with Federal Government departments, most of which have parallel training divisions. The Commission's Training Division is primarily a co-ordinating agent. It promotes and organizes activities, trains departmental instructors in the presentation of courses, prepares and, in some cases, gives courses of general application to all departments, publishes booklets and other training aids, assists departments in developing training to meet specialized needs, and acts as a general clearing-house for the exchange of information on training matters.

Promotion.—It is a prime object of the Civil Service Act to create a career service. The result is that promotion, like entrance to the Service, is based on merit and a sound promotion system is developing. The present procedure involves the consideration of three factors: seniority or length of service; efficiency of candidates in their present positions; and fitness for the vacant positions. An automatic rating on seniority is given by the Commission and ratings on efficiency and fitness are provided by the department concerned. Appeal machinery, under Commission jurisdiction, has been set up for those employees who feel that their qualifications have not been properly assessed.

Position Classification and Compensation.—Provision is made in the Civil Service Act for the classifying of positions in the public service. A system of position-classification was instituted in 1919 and positions with like duties and responsibilities were classified alike and remunerated equally. Each position has a title, a set of tasks or duties which are proper to it in the organization in which it occurs and, arising out of these duties, a set of qualifications appropriate for their performance. Positions with duties of similar kind are grouped together under a common title to form a class, and grades within the class reflect the level of responsibility.

The determination of rates of compensation for each class is a continuing responsibility of the Commission and salary and wage surveys are conducted constantly. Position classification is a mainspring in the Commission's primary function of recruitment, involving the fixing of standards of qualification for each class of position. The classification structure has been simplified in the past few years by a substantial reduction in the number of classes of positions.

Organization and Methods.—Under the terms of the Civil Service Act, the Commission is made responsible for investigating and reporting to the Governor in Council on all matters affecting the organization of departments. In this respect the Commission acts as agent for the executive arm of the Government which maintains a constant check on the growth of establishments. In addition to the annual scrutiny of estimates by Parliament, departments are required to submit for approval all projected staff increases before engaging additional personnel.

In recent years there has been an increasing awareness of the extent to which economical administration depends on the adoption of modern management techniques and devices. In 1948 the Commission set up an Organization and Methods Service to study problems of management in collaboration with officials directly responsible for major areas of administration. Briefly, this Service affords practical assistance to departments and other agencies of the Government through the systematic examination of structure, operations, procedures and work methods. Its growing facilities are offered, free of charge, to all departments.

Civil Service Statistics.—Monthly returns of personnel and salaries are made by each department of the Federal Government to the Dominion Bureau of Statistics, according to a plan that ensures comparability between departments and continuity in point of time.

From 1914 to 1920, the number of employees increased very rapidly as a result of the extension of the functions of government and of the imposition of new taxes which necessitated additional officials as collectors. New services, such as the Department of Pensions and National Health and the Soldier Settlement Board, were also created during this period. In January 1920, 47,133 persons were employed; this number was the highest reached prior to January 1940, when employees numbered 49,739.

Between March 1939 and March 1951, there was an increase of 78,474 in the total number of permanent and temporary employees. This increase was mainly accounted for as follows: Department of National Defence, 20.8 p.c.; Department of National Revenue, 9.6 p.c.; Post Office Department, 8.9 p.c.; Comptroller of Treasury, 3.8 p.c.; Department of Transport, 4.6 p.c.; Department of Agriculture, 5.0 p.c.; Public Works Department, 3.9 p.c.; Unemployment Insurance Commission, 8.9 p.c.; and Veterans Affairs, including the Soldier Settlement Board, 15.0 p.c.

In March 1951, the number of permanent employees represented 40.6 p.c. of the total number of civil servants as compared with 69.7 p.c. of the total in March 1939, and 66 p.c. of the total in March 1925.

1.—Numbers and Percentages of Permanent and Temporary Civil Service Employees, Months of March, 1938-51

NOTE.—Figures for the years 1925-37 will be found at p. 1141 of the 1946 Year Book.

Month of March—	Permanent		Temporary		Grand Total	Month of March—	Permanent		Temporary		Grand Total
	Total	P.C. of Total	Total	P.C. of Total			Total	P.C. of Total	Total	P.C. of Total	
	No.		No.				No.		No.		
1938.....	32,308	73.2	11,835	26.8	44,143	1945....	30,240	26.1	85,668	73.9	115,908
1939.....	32,132	69.7	13,974	30.3	46,106	1946....	31,088	25.8	89,469	74.2	120,557
1940.....	30,948	62.2	18,791	37.8	49,739	1947....	29,787	23.8	95,550	76.2	125,337
1941.....	30,149	45.0	36,777	55.0	66,926	1948....	33,662	28.4	84,708	71.6	118,370
1942.....	29,524	35.2	54,257	64.8	83,781	1949....	37,909	30.6	86,015	69.4	123,924
1943.....	28,708	27.6	75,347	72.4	104,055	1950....	45,259	35.6	81,937	64.4	127,196
1944.....	29,343	26.0	83,315	74.0	112,658	1951....	50,551	40.6	74,029	59.4	124,580

2.—Salaries and Wages and Percentages Paid to Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1938-51

NOTE.—Figures for the years 1925-37 will be found at p. 1141 of the 1946 Year Book.

Year Ended Mar. 31—	Permanent		Temporary		Grand Total	Year Ended Mar. 31—	Permanent		Temporary		Grand Total
	Total	P.C. of Total	Total	P.C. of Total			Total	P.C. of Total	Total	P.C. of Total	
	\$'000		\$'000				\$'000		\$'000		
1938.....	55,292	82.7	11,588	17.3	66,880	1945....	64,189	35.6	115,959	64.4	180,148
1939.....	56,264	80.8	13,357	19.2	69,621	1946....	66,440	34.8	124,388	65.2	190,828
1940.....	57,154	78.1	16,044	21.9	73,198	1947....	70,985	31.7	152,792	68.3	223,777
1941.....	56,108	66.0	28,857	34.0	84,965	1948....	78,495	34.6	148,295	65.4	226,790
1942.....	57,609	53.1	50,815	46.9	108,424	1949....	99,671	37.9	163,309	62.1	262,980
1943.....	58,747	41.5	82,955	58.5	141,702	1950....	119,840	42.2	163,816	57.8	283,656
1944.....	60,358	35.9	107,614	64.1	167,972	1951....	141,069	47.2	157,908	52.8	298,977

3.—Numbers and Percentages of Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Months of March, 1938-51

NOTE.—Figures for the years 1925-37 will be found at p. 1142 of the 1946 Year Book.

Month of March—	Permanent				Temporary				Grand Total
	Total	P.C. of Total H.Q.	P.C. of Total Perm.	P.C. of Total Perm. and Temp.	Total	P.C. of Total H.Q.	P.C. of Total Temp.	P.C. of Total Perm. and Temp.	
	No.				No.				
1938.....	7,731	66.2	23.9	17.5	3,941	33.8	33.3	8.9	11,672
1939.....	7,564	63.8	23.5	16.4	4,284	36.2	30.7	9.3	11,848
1940.....	7,507	53.5	24.3	15.1	6,513	46.5	34.7	13.1	14,020
1941.....	7,419	37.9	24.6	11.1	12,174	62.1	33.1	18.2	19,593
1942.....	7,221	26.9	24.5	8.6	19,614	73.1	36.2	23.4	26,835
1943.....	6,829	21.4	23.8	6.6	25,108	78.6	33.3	24.1	31,937
1944.....	6,765	20.3	23.1	6.0	26,564	79.7	31.9	23.6	33,329
1945.....	6,777	19.5	22.4	5.8	27,963	80.5	32.6	24.1	34,740
1946.....	6,772	20.2	21.8	5.6	26,835	79.8	30.0	22.3	33,607
1947.....	6,582	22.0	22.1	5.3	23,276	78.0	24.4	18.6	29,858
1948.....	6,835	24.8	20.3	5.8	20,772	75.2	24.5	17.5	27,607
1949.....	7,738	26.5	20.4	6.2	21,434	73.5	24.9	17.3	29,172
1950.....	8,935	30.0	19.7	7.0	20,836	70.0	25.4	16.4	29,771
1951.....	10,799	35.9	21.4	8.7	19,270	64.1	26.0	15.5	30,069

4.—Salaries and Wages and Percentages Paid to Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Years Ended Mar. 31, 1938-51.

NOTE.—Figures for the years 1925-37 will be found at p. 1142 of the 1946 Year Book.

Year Ended Mar. 31—	Permanent				Temporary				Grand Total
	Total	P.C. of Total H.Q.	P.C. of Total Perm.	P.C. of Total Perm. and Temp.	Total	P.C. of Total H.Q.	P.C. of Total Temp.	P.C. of Total Perm. and Temp.	
	\$'000				\$'000				
1938.....	15,008	79.4	27.1	22.4	3,890	20.6	33.6	5.8	18,898
1939.....	15,175	77.7	27.0	21.8	4,347	22.3	32.5	6.2	19,522
1940.....	15,227	73.5	26.6	20.8	5,492	26.5	34.2	7.5	20,719
1941.....	15,318	58.6	27.3	18.0	10,843	41.4	37.6	12.8	26,161
1942.....	15,589	46.6	27.1	14.4	17,882	53.4	35.2	16.5	33,471
1943.....	15,724	34.9	26.8	11.1	29,292	65.1	35.3	20.7	45,016
1944.....	15,910	31.0	26.4	9.5	35,368	69.0	32.9	21.1	51,278
1945.....	16,036	29.5	25.0	8.9	38,320	70.5	33.0	21.3	54,356
1946.....	16,333	29.3	24.6	8.6	39,366	70.7	31.6	20.6	55,699
1947.....	17,180	30.2	24.2	7.7	39,703	69.8	26.0	17.8	56,883
1948.....	18,893	34.5	24.1	8.3	35,814	65.5	24.2	15.8	54,707
1949.....	22,699	36.1	22.8	8.6	40,202	63.9	24.6	15.3	62,901
1950.....	26,850	39.1	22.4	9.5	41,748	60.9	25.5	14.7	68,598
1951.....	31,832	43.7	22.6	10.7	41,068	56.3	26.0	13.7	72,900

5.—Index Numbers of Permanent and Temporary Civil Service Employees, Months of March, 1938-51

NOTE.—Figures for the years 1925-37 will be found at p. 1143 of the 1946 Year Book.

(March 1925=100)

Month of March—	Employed at Departmental Headquarters			Employed other than at Departmental Headquarters			Total Employed		
	Total	Perm.	Temp.	Total	Perm.	Temp.	Total	Perm.	Temp.
1938.....	116	119	109	113	129	80	113	127	88
1939.....	117	117	119	119	129	99	118	126	104
1940.....	139	116	180	124	123	125	128	121	140
1941.....	194	115	337	164	119	251	172	118	274
1942.....	266	111	543	197	117	353	215	116	404
1943.....	316	105	695	250	115	512	267	112	561
1944.....	330	104	735	275	119	579	289	115	621
1945.....	344	105	774	281	123	588	298	118	638
1946.....	333	105	743	301	128	639	310	122	667
1947.....	296	102	644	331	122	737	322	117	712
1948.....	274	106	575	315	141	652	304	132	631
1949.....	289	119	593	328	158	658	318	149	641
1950.....	295	138	577	338	191	623	327	177	610
1951.....	298	167	533	328	209	558	320	198	552

6.—Index Numbers of Salaries and Wages Paid to Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1938-51

NOTE.—Figures for the years 1925-37 will be found at p. 1143 of the 1946 Year Book.

(Year ended Mar. 31, 1925=100)

Year Ended Mar. 31—	Employed at Departmental Headquarters			Employed other than at Departmental Headquarters			Total Employed		
	Total	Perm.	Temp.	Total	Perm.	Temp.	Total	Perm.	Temp.
1938.....	120	126	100	117	139	64	118	135	73
1939.....	123	127	112	122	142	75	123	138	84
1940.....	131	128	141	128	145	87	129	140	101
1941.....	165	128	279	143	141	149	150	137	181
1942.....	212	131	460	183	145	273	191	141	318
1943.....	285	132	754	236	149	444	249	144	520
1944.....	324	133	910	285	154	598	296	148	674
1945.....	343	134	986	307	166	643	317	157	726
1946.....	352	137	1,013	330	173	704	336	163	779
1947.....	360	144	1,022	407	186	936	394	174	957
1948.....	346	158	922	420	206	931	399	192	929
1949.....	398	190	1,035	488	266	1,019	463	244	1,023
1950.....	434	225	1,075	525	321	1,011	499	293	1,026
1951.....	461	267	1,057	551	378	967	526	345	989

7.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March 1950 and March 1951

NOTE.—The number of persons in the "non-enumerated classes" is not included in this table, but their compensation is included under "Salaries and Wages".

Department and Branch	March 1950		March 1951	
	Em- ployees	Salaries and Wages	Em- ployees	Salaries and Wages
	No.	\$	No.	\$
Agriculture—				
Departmental Administration.....	148	31,423	164	48,636
Marketing Service.....	943	201,927	912	308,506
Production Service.....	1,628	349,679	1,531	559,648
Experimental Farms.....	1,563	293,153	1,722	423,124
Science Service.....	1,242	264,368	1,376	434,724
Prairie Farm Rehabilitation.....	977	136,650	1,204	198,107
Prairie Farm Assistance Act.....	114	15,484	88	19,283
Agricultural Prices Support Act.....	11	1,858	14	5,086
Maritime Marshlands Act.....	41	6,078	67	14,956
Totals, Agriculture.....	6,667	1,300,620	7,078	2,012,070
Atomic Energy Control Board.....	7	2,167	7	2,917
Auditor General.....	169	42,399	163	58,676
Chief Electoral Officer.....	13	3,463	14	4,621
Citizenship and Immigration—				
Administrative Branch.....	48	9,959	39	13,182
Canadian Citizenship Branch.....	24	5,368	29	9,583
Canadian Citizenship Registration Branch.....	82	12,525	81	19,063
Immigration.....	1,468	287,278	1,659	464,799
Indian Affairs.....	1,035	209,694	1,109	273,499
Totals, Citizenship and Immigration.....	2,657	524,824	2,917	780,126
Civil Service Commission.....	580	112,574	536	154,342
Commissioner of Penitentiaries.....	1,364	277,875	1,509	457,503
External Affairs—				
Administration.....	531	107,019	542	164,195
Passport Offices.....	62	9,587	57	13,493
International Civil Aviation Organization, Montreal.....	2	345	—	—
High Commissioner's Office, London, England.....	89	21,220 ¹	91	26,475 ¹
High Commissioner's Office, Canberra, Australia.....	15	3,778 ¹	14	3,886 ¹
High Commissioner's Office, Wellington, N.Z.....	11	2,964 ¹	14	4,035 ¹
High Commissioner's Office, Dublin, Ireland.....	14	4,643 ¹	2	—
High Commissioner's Office, Pretoria, South Africa.....	10	2,466 ¹	9	2,659 ¹
High Commissioner's Office, Delhi, India.....	24	5,658 ¹	24	6,900 ¹
High Commissioner's Office, Karachi, Pakistan.....	10	3,046 ¹	15	3,596 ¹
Canadian Embassy, Rio de Janeiro, Brazil.....	17	6,637 ¹	18	7,310 ¹
Canadian Embassy, Washington, U.S.A.....	70	26,529 ¹	68	29,135 ¹
Canadian Embassy, Mexico City, Mexico.....	15	6,293 ¹	18	6,085 ¹
Canadian Embassy, Moscow, U.S.S.R.....	19	5,556 ¹	17	7,122 ¹
Canadian Embassy, Santiago, Chile.....	8	3,966 ¹	11	5,443 ¹
Canadian Embassy, Paris, France.....	52	20,815 ¹	52	21,323 ¹
Canadian Embassy, Nanking, China.....	23	4,728 ¹	8	1,281 ¹
Canadian Embassy, Lima, Peru.....	6	2,245 ¹	8	4,725 ¹
Canadian Embassy, Brussels, Belgium.....	22	7,490 ¹	19	7,407 ¹
Canadian Embassy, Buenos Aires, Argentina.....	15	5,606 ¹	16	7,887 ¹
Canadian Embassy, Athens, Greece.....	19	5,672 ¹	21	5,923 ¹
Canadian Embassy, Ankara, Turkey.....	16	4,592 ¹	15	4,696 ¹
Canadian Embassy, The Hague, Netherlands.....	16	4,487 ¹	17	6,405 ¹
Canadian Embassy, Rome, Italy.....	19	6,232 ¹	24	8,155 ¹
Canadian Embassy, Dublin, Ireland.....	—	—	13	3,242 ¹
Canadian Embassy, Havana, Cuba.....	—	—	11	4,317 ¹
Canadian Legation, Havana, Cuba.....	11	4,062 ¹	3	—
Canadian Legation, Oslo, Norway.....	13	3,339 ¹	13	3,949 ¹
Canadian Legation, Prague, Czechoslovakia.....	13	2,952 ¹	14	4,260 ¹
Canadian Legation, Stockholm, Sweden.....	11	3,677 ¹	11	4,145 ¹
Canadian Legation, Berne, Switzerland.....	9	3,470 ¹	11	4,637 ¹
Canadian Legation, Belgrade, Yugoslavia.....	8	3,299 ¹	12	4,634 ¹
Canadian Legation, Copenhagen, Denmark.....	14	3,772 ¹	10	2,184 ¹
Canadian Legation, Warsaw, Poland.....	8	1,798 ¹	8	3,800 ¹
Canadian Delegation to the United Nations, New York, U.S.A.....	12	5,961 ¹	12	8,242 ¹

¹ Includes living allowances.
 "Canadian Embassy, Havana, Cuba".

² See "Canadian Embassy, Dublin, Ireland".

³ See

7.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March 1950 and March 1951—continued

Department and Branch	March 1950		March 1951	
	Em- ployees	Salaries and Wages	Em- ployees	Salaries and Wages
	No.	\$	No.	\$
External Affairs—concluded				
Canadian Delegation to the United Nations, Geneva, Switzerland.....	5	2,129 ¹	5	2,171 ¹
Consular Services, New York, U.S.A.....	26	10,992 ¹	28	13,708 ¹
Consular Services, Portland, U.S.A.....	1	220	1	209
Consular Services, Boston, U.S.A.....	8	3,831 ¹	7	3,844 ¹
Consular Services, Chicago, U.S.A.....	10	4,670 ¹	10	5,341 ¹
Consular Services, Detroit, U.S.A.....	6	2,462 ¹	6	2,911 ¹
Consular Services, San Francisco, U.S.A.....	10	4,713 ¹	11	5,235 ¹
Consular Services, Frankfurt, Germany.....	8	1,767 ¹	12	3,872 ¹
Consular Services, Shanghai, China.....	—	—	6	2,184 ¹
Consular Services, Caracas, Venezuela.....	—	—	5	4,382 ¹
Canadian Military Mission, Berlin, Germany.....	4	1,017 ¹	2	675
Canadian Liaison Mission, Japan.....	27	3,421 ¹	24	5,176 ¹
Canadian Mission, Bonn, Germany.....	6	2,990 ¹	18	6,571 ¹
Organization to the European Economic Co-opera- tion, Paris, France.....	—	—	8	6,325
Special Messengers.....	6	1,423 ¹	6	1,210 ¹
Totals, External Affairs.....	1,301	343,539¹	1,342	455,260
Finance—				
Main Department.....	645	119,596	602	172,393
Comptroller of Treasury.....	4,300	775,184	4,034	1,098,326
Royal Canadian Mint.....	222	46,629	222	71,000
Tariff Board.....	17	6,454	17	6,896
Wartime Prices and Trade Board.....	690	157,301	260	108,308
Totals, Finance.....	5,874	1,105,164	5,135	1,456,923
Fisheries.....	883	277,332	962	420,553
Governor General's Secretary ²	10	3,432	10	4,380
House of Commons.....	656	117,679	662	135,138
Insurance.....	72	19,295	82	30,001
International Joint Commission.....	10	3,489	11	4,694
Justice—				
Main Department.....	71	17,945	74	25,730
Remission Service.....	23	5,485	24	7,945
Supreme Court.....	29	7,262	33	10,715
Exchequer Court.....	15	3,706	17	5,662
Combines Investigation.....	32	8,420	31	11,491
Bankruptcy.....	8	2,155	10	3,600
Commission under Revision of Criminal Code.....	2	—	4	1,808
Commission under Revision of Public Statutes.....	10	3,317	9	3,039
Yukon Territorial Court.....	2	599	2	759
Totals, Justice.....	192	46,731⁴	204	70,749
Labour—				
Main Department.....	645	190,629	635	240,187
Unemployment Insurance.....	7,148	1,557,293 ¹	7,051	1,994,388 ¹
Totals, Labour.....	7,793	1,747,922	7,686	2,234,575
Library of Parliament.....	31	7,700	36	12,760
Mines and Technical Surveys.....	1,661	393,062	1,720	570,521
National Defence—				
General Defence Administration.....	736	158,108	1,057	265,531
Army Services.....	7,280	1,953,674	7,119	2,510,652
Naval Services.....	4,022	1,277,875	4,119	1,702,645
Air Services.....	3,707	880,893	4,121	1,197,907
Defence Research Board.....	1,102	282,750	1,341	440,514
Totals, National Defence.....	16,847	4,553,300	17,757	6,117,249
National Film Board.....	596	136,189	565	180,166

¹ Includes living allowances.² Salaries of aides-de-camp are included but not their number.³ No salaries reported due to adjustments for year.⁴ Does not add due to adjustments of \$2,158.

7.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March 1950 and March 1951—continued

Department and Branch	March 1950		March 1951	
	Em- ployees	Salaries and Wages	Em- ployees	Salaries and Wages
	No.	\$	No.	\$
National Health and Welfare—				
Departmental Administration.....	268	48,093	257	68,751
Health.....	847	207,064	880	290,794
Welfare.....	755	132,601	733	189,034
Indian Health Services.....	931	143,223	1,084	205,004
Totals, National Health and Welfare.....	2,801	530,981	2,954	753,583
National Research Council.....	1,694	400,167	1,891	624,563
National Revenue—				
Customs and Excise Division.....	6,086	1,381,617	6,194	2,087,859
Income Tax Division.....	10,629	1,994,705	7,011	2,229,992
Totals, National Revenue.....	16,715	3,376,322	13,205	4,317,851
Post Office— ¹				
Civil Government.....	1,046	205,391	1,003	291,047
Operating Service.....	18,050	10,253,745	18,475	12,008,285
Totals, Post Office.....	19,096	10,459,136	19,478	12,299,332
Prime Minister's Office.....	34	8,411	37	12,502
Privy Council.....	53	12,823	48	16,532
Public Archives.....	61	14,333	59	19,456
Bibliographic Centre (National library).....	—	—	6	1,679
Public Printing and Stationery.....	991	303,375	1,041	335,186
Public Works—				
Civil Government.....	385	86,239	413	128,507
Outside Service.....	6,569	901,054	6,818	1,157,355
Totals, Public Works.....	6,954	987,293	7,231	1,285,862
Resources and Development— ²				
Main Department.....	...	...	1,296	417,553
Engineering and Water Resources Branch.....	...	...	65	26,440
Water Resources Division and Engineering and Architectural Division.....	...	...	328	98,216
Totals, Resources and Development.....	1,570	391,753	1,689	542,209
Royal Canadian Mounted Police.....	558	612,440	622	2,332,058
Secretary of State.....	481	107,405	491	160,256
Office of the Custodian ³	127	31,852	97	25,711
Senate.....	156	28,217	159	45,099
Trade and Commerce—				
Headquarters and Miscellaneous Branches.....	1,385	313,964	1,374	433,728
Board of Grain Commissioners.....	813	170,471	779	167,963
Dominion Bureau of Statistics.....	1,413	247,213	1,398	381,822
Canadian Government Elevators.....	137	26,827	169	46,475
Totals, Trade and Commerce.....	3,748	758,475	3,720	1,029,988

¹ Statistics do not include the numbers of revenue postmasters earning less than \$3,000. It should also be noted that Post Office expenditures are balanced by receipts from the public.

² Total only for 1950 as branches are not comparable with 1951.

³ Salaries for this office are paid out of their administration funds and not out of parliamentary funds.

7.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March 1945 and March 1951—concluded

Department and Branch	March 1950		March 1951	
	Em- ployees	Salaries and Wages	Em- ployees	Salaries and Wages
	No.	\$	No.	\$
Transport—				
Main Department.....	9,435	2,091,684	9,056	2,861,531
Transport Commissioners.....	155	40,775	158	59,781
Air Transport Board.....	48	12,504	54	19,056
Canadian Maritime Commission.....	34	10,239	32	12,979
Royal Commission on Transportation.....	10	1,605	1	654
Totals, Transport.....	9,682	2,156,807	9,301	2,954,001
Veterans Affairs—				
Main Department.....	13,748	2,421,363	12,931	3,336,615
Soldier Settlement and Veterans' Land Act.....	1,334	280,954	1,224	409,778
Totals, Veterans Affairs.....	15,082	2,702,317	14,155	3,746,393
Grand Totals.....	127,196	33,900,863	124,580	45,668,485¹

¹ Includes \$3,469,000 salary adjustments retroactive to Dec. 1, 1950.

PART V.—CANADA'S EXTERNAL RELATIONS

Section 1.—Canada's Growth in International Status*

The development of the Department of External Affairs is an excellent illustration of the growth of Canada in external status. It was not until forty years after Confederation that a veteran civil servant, Joseph Pope, then Under-Secretary of State, appeared before the Royal Commission on the Civil Service to testify in support of his memorandum on the urgency and desirability "of establishing a more systematic mode of dealing with what I may term for want of a better phrase, the external affairs of the Dominion". Two years later (1909) Prime Minister Sir Wilfred Laurier sponsored a bill for the creation of the Department of External Affairs which stipulated that its head should "have the conduct of all official communications between the Government of Canada and the Government of any other country in connection with the external affairs of Canada". The term "external affairs" was used in order that the new Department should have responsibility for communications of an intra-imperial as well as of an international character. Initially the Secretary of State was placed in charge of the Department but in 1912 Sir Robert Borden secured legislation to vest the office in the Prime Minister with whom it remained until 1946. In that year it was separated from the Prime Minister's Office and headed by a full-time Secretary of State for External Affairs.

When war came in 1914 the Department was still on a very modest basis with only two officers. The chief reason for this unobtrusiveness was the fact that Canada possessed at that time no effective control of its external relations. Its representation abroad was confined to a High Commissioner in London (since 1880), whose office did not come under the jurisdiction of the new Department until 1921, and a Commissioner-General in France (since 1882), neither of whom possessed diplomatic status. Other Canadians were serving abroad as trade commissioners

* Prepared in the Department of External Affairs by F. H. Soward.

or emigration agents but they represented individual departments and not the Government as a whole. Negotiations on such questions as trade and boundaries were conducted through the medium of the British Foreign Office, although Canadian Ministers and civil servants might, on occasion, take the major part in negotiations, as when the Minister of Labour went to Tokyo in 1907 to discuss the vexed question of Japanese emigration to Canada. It was not until the Imperial Conference of 1911 that Canada and the other Dominions were given a glimpse of the workings of British diplomacy in Europe, when it was made clear by Prime Minister Asquith that authority in that field could not be shared.

The great watershed in Canadian policy was World War I. In France and Flanders, Canadian soldiers bought with their blood the title deeds to Canadian external autonomy. By virtue of their achievements from Ypres to Mons, Prime Minister Sir Robert Borden could claim for Canada at the Imperial Conference of 1917 an "adequate voice in foreign policy" and could secure separate representation from the United Kingdom at the Peace Conference, separate signature of the Peace Treaties, and separate membership in the League of Nations.* In 1926 the Balfour Report formally described the new relationship of the Dominions and of India to the United Kingdom as being that of "autonomous communities . . . equal in status and in no way subordinate one to the other in any respect of their domestic or external affairs . . .". In the meantime Canada had signed (1923) its first international treaty (on the regulation of halibut fishing on the Pacific coast) with the United States without the usual counter-signature of the British Ambassador resident in the country with which the treaty had been negotiated. An office at Geneva had been established in 1925 under Dr. W. R. Riddell for the conduct of Canadian affairs with the League of Nations. Both the United Kingdom and the United States had agreed to the creation of a separate Canadian Mission at Washington which originally was to have been combined with the British Embassy.

The need for such an office had long been felt because of the number and complexity of questions which inevitably arose in Canadian-American relations. In 1918 a Canadian War Mission was established at Washington and its secretary Merchant Mahoney remained, when the Mission ended, as Agent of the Department of External Affairs but without diplomatic status. Although the right to establish a Canadian Mission had been conceded in 1920, it was not until February 1927 that the first Canadian Minister, the Hon. Vincent Massey, formally presented his credentials to the President of the United States. Shortly afterwards the Hon. William Phillips became the first Minister from the United States to Canada. The new Legation at Washington was entirely separate from the British Embassy.

After July 1, 1927, as a result of the decision of the Imperial Conference of 1926 that in future the Governor General in each Dominion should represent the King alone, correspondence between the Governments of the United Kingdom and Canada was addressed directly to the Secretary of State for External Affairs. To represent the United Kingdom Government at Ottawa, a High Commissioner was appointed in 1928. Sir William Clark was the first to fill that post. No other Commonwealth country established an office in Canada before the outbreak of World War II except South Africa which sent an Accredited Representative, David deWaal Meyer, in 1938.

* It should be noted that Sir Robert and his Canadian colleagues were also members of the British Empire delegation, thus giving Canada double representation at the Conference. It was largely through that delegation that Canada's influence was exercised at Paris.

The first Canadian Legation in Europe was opened at Paris in 1928. This was to be expected since almost 30 p.c. of the Canadian people were descendants of the little group of French settlers who had struggled to build up New France in the Western Hemisphere. The first appointee was the Hon. Philippe Roy who had served at Paris during the previous seventeen years as Commissioner General. The first Canadian diplomatic Legation in Asia was established at Tokyo in 1929 with the Hon. Herbert Marler as the first Minister. Exchange of Missions with Japan was based on the expectation of rapidly increasing trade with the Orient, on the role of Japan as the major power in the Far East, and on the advisability of having a diplomat available in the Japanese capital for discussions, when necessary, of immigration matters.

At the close of the 1920's, Canada was gradually securing recognition abroad of its expanding international status. Election to the League of Nations Council in 1927, the first occasion on which the Assembly had chosen a British Dominion to serve on that body, and an individual invitation from the United States to sign the Pact of Paris in 1928, were indications that the world was beginning to appreciate the implications of the evolution of the British Commonwealth of Nations. At London, it was becoming apparent that the possibility of maintaining a single imperial foreign policy, as had been claimed by Lloyd George in 1921, was disappearing, and the most that could be hoped for was the preservation of a harmony of opinion on major questions of foreign policy. At Ottawa, the Department of External Affairs was slowly expanding its personnel and broadening its influence in government circles under the leadership of Dr. O. D. Skelton, a distinguished scholar who left Queen's University to become Under Secretary of State for External Affairs in 1925.

The depression years of the 1930's were a factor in retarding the expansion of the Department of External Affairs and prevented the creation of more Missions, except in Belgium and the Netherlands which had initiated proposals for an exchange. In 1937 Baron Silvercrux established Belgium's Legation at Ottawa, but it was not until 1939 that Mr. Jean Désy was accredited as Canada's Minister to both of the Low Countries. During that period, as the shadow of war fell across Asia, Africa and Europe in turn, the Canadian Government made clear at Geneva its rejection of automatic advance commitments to economic or military sanctions against an aggressor, but privately at Berlin (1937) and publicly Prime Minister King declared that "If there was a war of aggression nothing in the world would keep the Canadian people from being at the side of Britain". Similarly, in 1938, President Roosevelt pledged American support if domination of Canadian soil were threatened by an overseas empire and the two countries began to concert their defence arrangements. In 1939, only after Parliamentary approval had been received did the Government of Canada forward to London, for the King's signature, a separate declaration of war upon Germany from that previously made by the United Kingdom. The action of the United States Government in not applying the neutrality legislation to Canada until this step had been taken was a significant recognition of Canada's advance in status.

The war years gave Canada greater stature in international affairs. The substantial contribution which the country was able to make to the Allied cause in both its military and economic aspects and the relative decline in strength of many European countries made it necessary for her to assume new and greater responsibilities. At the close of the War, Canada ranked third among the Allies in naval strength and fourth in air power. Alone among the Allies, Canada had not required Lend-Lease Aid from the United States but had contributed almost

\$2,250,000,000 of Mutual Aid. During and after the War, to further reconstruction, almost \$600,000,000 was advanced as Export Credits to a number of countries and a loan of \$1,250,000,000 was extended to the United Kingdom. In the operations of UNRRA, Canada was the third largest contributor and one of the major sources of supply.* Because of these achievements and the constructive policies of its representatives at the numerous international conferences at the close of the War and thereafter, Canada came to be regarded as a "Middle Power".

The rapid expansion of Canadian representation abroad has reflected these changed conditions. Immediately after war was declared it was decided to send High Commissioners to Australia, New Zealand, South Africa and Ireland. In the post-war period similar arrangements were made with India and Pakistan. Exchanges were made with Canada's allies, initially by accrediting a single Minister, Major-General George P. Vanier, to the Allied Governments established at London and by sending Ministers to the wartime capitals of China and the U.S.S.R. During the War, neutral countries such as Sweden and Turkey also sent Ministers to Ottawa with the understanding that Canada would reciprocate in the post-war period. To emphasize hemispheric solidarity against the Axis powers and with a view to furthering commercial opportunities in Latin America, Missions were opened during the War in Argentina, Brazil, Chile, Cuba, Mexico and Peru. No new Missions have been opened there since the War but a Consulate-General was created in Venezuela. Uruguay has had a Legation at Ottawa since 1947. In 1943 the first Canadian Mission was elevated to the rank of Embassy in the United States and since that time the majority of Canadian Missions abroad have achieved a similar rank. Although for various special reasons Consulates were established during the War in Greenland and St. Pierre and Miquelon and a Consulate-General at New York, it was not until 1947 that a Consular Division was established in the Department. Since that time, in addition to the six consular offices in the United States, the new Division has been concerned with offices in Brazil, China, Germany, the Philippines and Venezuela. At the end of 1951, Canada had Embassies in eighteen countries, Legations in eight countries, High Commissioner's offices in six countries, and Missions of a special character at Tokyo and Berlin, or accredited to the United Nations Organization at New York and Geneva, and to the Organization for European Economic Co-operation at Paris. The Canadian diplomatic representatives in Belgium, Norway and Sweden are also accredited to Luxembourg, Iceland and Finland where, at present, Legations are not maintained. In January 1952, Canada and Portugal agreed to establish diplomatic relations—a step facilitated by their common membership in the North Atlantic Treaty Organization. To staff these offices as well as headquarters at Ottawa, over 250 foreign-service officers, including heads of Missions, are required.

But it is not only diplomats, consuls and trade commissioners who represent Canada abroad in almost fifty countries. The presence of Canadian soldiers, sailors and airmen in Korea, Germany, France and the United Kingdom is proof positive that the Canadian people are prepared to play their part in combating or deterring aggression in Asia or Europe. The despatch of Canadian technical experts to under-developed countries either at the request of the United Nations or in accordance with the Colombo Plan, and the appropriation of funds to further economic recovery overseas are a demonstration of Canadian willingness to help build a happier world with higher living standards.

* Cf. "Canada's Part in the Relief and Rehabilitation of the Occupied Territories", *Canada Year Book* 1946, pp. 79-85.

Section 2.—Diplomatic Representation¹

1.—Canadian Representation Abroad

Country and Year Representation Established	Present Status of Representative	Address	Present Representative	Date Letter of Credence Presented
Argentina.....1941	Ambassador.....	Bartolome Mitre, 478, Buenos Aires.	MAJOR - GENERAL THE HON. L. R. LAFLÈCHE, D.S.O.	(nominated)
Australia.....1939	High Commissioner	State Circle, Canberra..	MR. C. F. ELLIOTT, C.M.G., Q.C.	June 9, 1951 ²
Belgium.....1939	Ambassador.....	35, rue de la Science, Brussels,	LIEUTENANT - GENERAL MAURICE POPE, C.B., M.C.	Aug. 3, 1950
Brazil.....1941	Ambassador.....	Avenida President Wilson, 165, 7th Floor, Rio de Janeiro.	DR. E. H. COLEMAN, C.M.G., Q.C.	Dec. 4, 1951
Chile.....1942	Ambassador.....	Bank of London and South America Bldg., Santiago.	MR. LEON MAYRAND....	May 17, 1951
Cuba.....1945	Ambassador.....	Avenida de las Misiones No. 17, Havana.	MR. H. A. SCOTT.....	Jan. 15 1952
Czechoslovakia..1942	Chargé d'Affaires <i>ad interim</i> .	Krakowska 22, Prague, 2	MR. J. M. TEAKLES....	
Denmark.....1946	Minister.....	Osterbrogade 26, Copenhagen.	MR. E. D. MCGREER...	
Finland.....1949	Minister.....	Borgmästarbrinken 3-C.32, Helsinki.	MR. W. D. MATTHEWS..	(nominated)
France.....1928	Ambassador.....	72 avenue Foch, Paris XVI.	MAJOR-GENERAL GEORGE P. VANIER, D.S.O., M.C.	Dec. 20, 1944
Germany.....1951	Ambassador.....	Zittelmann Strasse 22, Bonn.	HON. T. C. DAVIS, Q.C.	Aug. 16, 1951
Greece.....1943	Ambassador.....	31 Queen Sofia Boulevard, Athens.	MR. GEORGE L. MAGANN	Nov. 23, 1949.
Iceland.....1949	Minister.....	c/o Canadian Legation, Fridtjof Nansens Plass 5, Oslo, Norway.	MR. E. J. GARLAND....	Aug. 11, 1949
India.....1946	High Commissioner	4 Aurangzeb Road, New Delhi.	MR. F. REID.....	(nominated)
Ireland.....1940	Ambassador.....	92 Merrian Square West, Dublin.	HON. W. F. A. TURGEON, Q.C.	July 17, 1950
Italy.....1947	Ambassador.....	Via Saverio Mercadante 15, Rome.	MR. P. DUPUY, C.M.G..	June 13, 1952
Japan.....1952	Chargé d'Affaires <i>ad interim</i> .	16 Omote - Machi, 3 Chrome, Minato - Ku, Tokyo.	MR. A. R. MENZIES....	Apr. 28, 1952
Luxembourg.....1945	Minister.....	c/o Canadian Embassy, 46, rue Montoyer, Brussels, Belgium.	LIEUTENANT - GENERAL MAURICE POPE, C.B., M.C.	July 28, 1950
Mexico.....1944	Ambassador.....	Edificio Internacional, Paseo de la Reforma, No. 1, Mexico City.	MR. C. P. HÉBERT.....	Feb. 24, 1949
Netherlands.....1939	Ambassador.....	Sophialaan 1A, The Hague.	MR. T. A. STONE.....	(nominated)

¹ Revised as at July 31, 1952.
this date is the date of assumption of duties.² For High Commissioners and Chargé d'Affaires *ad interim*,

1.—Canadian Representation Abroad—continued

Country and Year Representation Established	Present Status of Representative	Address	Present Representative	Date Letter of Credence Presented
New Zealand.....1940	High Commissioner	Government Life Insurance Bldg., Customs Quay, Wellington.	MR. A. RIVE.....	Aug. 21, 1946 ¹
Norway.....1943	Minister.....	Fridtjof Nansens Plass 5, Oslo.	MR. E. J. GARLAND.....	Oct. 21, 1947
Pakistan.....1949	High Commissioner	Metropole Hotel, Victoria Road, Karachi.	MR. K. P. KIRKWOOD..	Jan. 10, 1952 ¹
Peru.....1944	Ambassador.....	Edificio Boza, Plaza San Martin, Lima.	MR. E. VAILLANCOURT..	Sept. 27, 1950
Poland.....1942	Chargé d'Affaires <i>ad interim</i> .	31 Ulica Katowicka, Saska Kępa, Warsaw.	MR. T. LEM. CARTER...	Apr. 17, 1952 ¹
Portugal.....1952	Minister.....	Rua Rodrigo da Fonseca 103-4, Lisbon.	HON. W. F. A. TURGEON, Q.C.	Feb. 6, 1952
Sweden.....1947	Minister.....	Strandvagen 7-C, Stockholm.	MR. W. D. MATTHEWS..	(nominated)
Switzerland.....1947	Minister.....	Thunstrasse 95, Berne..	MR. V. DORE, C.M.G...	June 20, 1950
Turkey.....1947	Ambassador.....	211, Ayranci Baglari Kavaklidere, Ankara.	MR. H. O. MORAN.....	(nominated)
Union of South Africa.	1940 High Commissioner	24 Barclays Bank Bldg., Church Square, Pretoria.	MR. T. W. L. MACDERMOT.	Oct. 6, 1950 ¹
Union of Soviet Socialist Republics	1942 Chargé d'Affaires <i>ad interim</i> .	23 Starokonyushny Pereulok, Moscow.	MR. R. A. D. FORD.....	
United Kingdom.	1880 High Commissioner	Canada House, Trafalgar Square, London, S.W.1.	MR. N. A. ROBERTSON..	June 1, 1952 ¹
United States of America.	1927 Ambassador.....	1746 Massachusetts Avenue, Washington, D.C.	MR. H. H. WRONG.....	Nov. 8, 1946
Yugoslavia.....1943	Ambassador.....	Proliterskin brigada 69, Belgrade.	MR. J. S. MACDONALD...	Oct. 23, 1951

MILITARY AND LIAISON MISSIONS

Germany.....1945	Head of Mission....	Lancaster House, Fehrbellinen Platz, Wilmersdorf, Berlin.	HON. T. C. DAVIS, Q.C.	June 22, 1950
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CONSULATES

Brazil.....1947	Consul.....	Rua 7 de Abril 252 São Paulo.	MR. J. C. VAN TIGHEN.	
Turkey.....1951	Consul.....	Istiklal Caddesi, Lion Magazasi Yaninda, Kismet Han No. 3/4, Beyoglu, Istanbul.	MR. G. F. G. HUGHES.	
United States of America.	1948 Acting Consul General.	532 Little Bldg., 80 Boylston St., Boston 16, Mass.	MR. J. L. DELISLE.	

¹ For High Commissioners and Chargé d'Affaires *ad interim*, this date is the date of assumption of duties.

1.—Canadian Representation Abroad—concluded

Country and Year Representation Established	Present Status of Representative	Address	Present Representative	Date Letter of Credence Presented
CONSULATES—concluded				
United States of America.	1947	Consul General.....	Suite 800, Daily News Bldg., 400 W. Madison St., Chicago 6, Ill.	MR. D. S. COLE.
"	1948	Consul.....	1035 Penobscot Bldg., Detroit 26, Mich.	MR. B. C. BUTLER.
"	1952	Consul.....	201 International Trade Mart Bldg., New Orleans, La.	MR. G. A. NEWMAN.
"	1943	Consul General.....	620 Fifth Ave., New York, N.Y.	MR. K. A. GREENE, O.B.E.
"	1945	Honorary Vice Consul.	443 Congress St., Portland, Maine.	MR. A. LAFLEUR.
"	1948	Acting Consul General.	400 Montgomery Street, San Francisco 4, Cal.	MR. C. N. SENIOR.
Venezuela.....	1946	Consul General.....	Edificio Pan-American, Puente Urapal, Candelaria, Caracas.	MR. E. TURCOTTE.
Republic of the Philippines.	1949	Consul General.....	12 Escolta, Manila.....	MR. F. H. PALMER, M.C.

2.—Representation of Other Countries in Canada

Country and Year Representation Established	Present Status of Representative	Address	Present Representative
Argentina.....1941	Chargé d'Affaires ad interim.	193 Sparks Street, Ottawa....	MR. GUILLERMO P. MACKINTOSH DERQUI.
Australia.....1940	High Commissioner	100 Sparks Street, Ottawa....	HIS EXCELLENCY THE RT. HON. FRANCIS M. FORDE, P.C.
Belgium.....1937	Ambassador.....	170 Laurier Avenue East, Ottawa.	HIS EXCELLENCY VICOMTE DU PARC, C.V.O.
Brazil.....1941	Ambassador.....	111 Sparks Street, Ottawa....	HIS EXCELLENCY HEITOR LYRA.
Chile.....1942	Ambassador.....	Suite 215, 56 Sparks Street, Ottawa.	HIS EXCELLENCY GENERAL ARNALDO CARRASCO.
China.....1942	Ambassador.....	201 Wurtemberg Street, Ottawa.	HIS EXCELLENCY LIU CHIEH.
Cuba.....1945	Ambassador.....	Chateau Laurier Hotel, Ottawa.	HIS EXCELLENCY DELFIN H. PUPO Y PROENZA.
Czechoslovakia...1942	Chargé d'Affaires ad interim.	171 Clemow Avenue, Ottawa..	MR. ZDENĚK ROŠKOT.
Denmark.....1946	Chargé d'Affaires ad interim.	451 Daly Avenue, Ottawa....	MR. ANKER SVART.
Finland.....1948	Chargé d'Affaires..	140 Wellington Street, Ottawa.	MR. H. R. MARTOLA.
France.....1928	Ambassador.....	42 Sussex Street, Ottawa.....	HIS EXCELLENCY HUBERT GUERIN.

2.—Representation of Other Countries in Canada—concluded

Country and Year Representation Established	Present Status of Representative	Address	Present Representative
Germany.....1951	Ambassador.....	580-582 Chapel Street, Ottawa.	HIS EXCELLENCY DR. WERNER DANKWORT.
Greece.....1942	Ambassador.....	Chateau Laurier Hotel, Ottawa.	HIS EXCELLENCY RAOUL BIBICA-ROSETTI.
Iceland.....1948	Minister.....	Chateau Laurier Hotel, Ottawa.	HIS EXCELLENCY THOR THORS.
India.....1947	High Commissioner	200 McLaren Street, Ottawa...	HIS EXCELLENCY R. R. SAKSENA.
Ireland.....1939	Ambassador.....	140 Wellington Street, Ottawa.	HIS EXCELLENCY SEAN MURPHY
Italy.....1947	Ambassador.....	384 Laurier Avenue East, Ottawa.	HIS EXCELLENCY CORRADO BALDONI.
Japan.....1952	Ambassador.....	88 Metcalfe Street, Ottawa...	HIS EXCELLENCY SADAŌ IGUCHI
Luxembourg.....1949	Minister.....	Chateau Laurier Hotel, Ottawa.	HIS EXCELLENCY HUGUES LE GALLAIS.
Mexico.....1944	Ambassador.....	88 Metcalfe Street, Ottawa...	HIS EXCELLENCY DR. JUAN MANUEL ALVAREZ DEL CASTILLO.
Netherlands.....1939	Ambassador.....	168 Laurier Avenue East, Ottawa.	HIS EXCELLENCY A. H. J. LOVINK.
New Zealand.....1943	High Commissioner	107 Wurtemberg Street, Ottawa.	HIS EXCELLENCY T. C. A. HISLOP, C.M.G.
Norway.....1942	Minister.....	140 Wellington Street, Ottawa.	HIS EXCELLENCY DANIEL STEEN
Pakistan.....1949	High Commissioner	499 Wilbrod Street, Ottawa...	HIS EXCELLENCY MOHAMMED IKRAMULLAH.
Peru.....1944	Ambassador.....	539 Island Park Drive, Ottawa	HIS EXCELLENCY GERMAN FERNANDEZ-CONCHA.
Poland.....1942	Chargé d'Affaires.	183 Carling Avenue, Ottawa...	MR. E. MARKOWSKI.
Portugal.....1952	Minister.....	Chateau Laurier Hotel, Ottawa.	HIS EXCELLENCY DR. LUIS ESTEVES FERNANDES.
Sweden.....1943	Minister.....	720 Manor Road, Rockcliffe Park.	HIS EXCELLENCY DR. KLAS BÖÖK.
Switzerland.....1946	Minister.....	5 Marlborough Avenue, Ottawa.	HIS EXCELLENCY DR. VICTOR NEF.
Turkey.....1944	Ambassador.....	Chateau Laurier Hotel, Ottawa.	HIS EXCELLENCY NUMAN TAHIR SEYMEN.
Union of South Africa.....1938	High Commissioner	15 Sussex Street, Ottawa.....	HIS EXCELLENCY ALFRED ADRIAN ROBERTS, Q.C.
Union of Soviet Socialist Republics	Chargé d'Affaires ad interim.	285 Charlotte Street, Ottawa..	MR. LEONID F. TEPLOV.
United Kingdom.....1928	High Commissioner	Earncliffe, Ottawa.....	HIS EXCELLENCY LIEUT.-GENERAL SIR ARCHIBALD NYE, G.C.S.I., G.C.M.G., G.C.I.E., K.C.B., K.B.E., M.C.
United States of America.....1927	Ambassador.....	100 Wellington Street, Ottawa.	HIS EXCELLENCY THE HON. STANLEY WOODWARD.
Uruguay.....1948	Chargé d'Affaires ad interim.	36 Marlborough Avenue, Ottawa.	MR. LUIS A. SOTO.
Yugoslavia.....1942	Ambassador.....	17 Blackburn Avenue, Ottawa.	HIS EXCELLENCY DR. RAJKO DJERMANOVIC.

Section 3.—International Activities*

Subsection 1.—Canada and Commonwealth Relations, 1950-52

Developments in Commonwealth relations from the end of the year 1949 to mid-1952 were unspectacular in comparison with the period immediately preceding, which saw such remarkable events as the acceptance of the Republic of India as a continuing member of the Commonwealth, the withdrawal of the Republic of Ireland from the measure of association with the Commonwealth which it had maintained up to that time, and the union of Newfoundland with Canada. During the period 1950-52 the members of the Commonwealth maintained their existing system of consultation and co-operation and were chiefly concerned with developments in the outside world.

The tense international situation resulting from the attitude taken by the Soviet Union and its satellites and from the behaviour of the communist régime in China during the past three years was one of the principal subjects of discussion, both by correspondence and at formal or informal meetings, among the Commonwealth group of nations. Both the Commonwealth Meeting on Foreign Affairs held at Colombo, Ceylon, in January 1950, and the Meeting of Commonwealth Prime Ministers held at London, England, in January 1951, devoted much time and attention to the above situation and the problems arising from it. In particular, developments in Asia, where the smaller non-communist countries have been exposed to communist infiltration or open invasion, called for the most careful consideration not only by the Commonwealth countries in that area but also by all members of the Commonwealth, whose ideals of freedom and democracy might be endangered by successful aggression.

It was clear that the backward agricultural and industrial condition of many countries of south and southeast Asia, along with the destruction and impoverishment in that area which had resulted from operations during World War II, would, if ignored, undermine any hope that these countries would have a healthy and continuous development along democratic lines. The 1950 Colombo Conference was greatly concerned with this situation and for this reason among others, urged the necessity of assistance to the nations of south and southeast Asia from the more industrially advanced countries in the Commonwealth and elsewhere. The Colombo Plan (see pp. 122-124) which was fashioned at this meeting and in which Canada is participating, is one of the most promising contributions towards building up the free world and enabling it to stand against totalitarianism.

Another subject which engaged the attention of both the 1950 Commonwealth Meeting of Foreign Ministers and the 1951 Commonwealth Meeting of Prime Ministers was the question of peace settlements, particularly with Japan, and the allied question of security in the Pacific area. While the discussions were helpful in smoothing over some differences of opinion on the Japanese settlement, they did not result in all Commonwealth members reaching a common decision in this matter. The Government of India eventually decided to negotiate a separate treaty with Japan, while the other Commonwealth governments, including Canada, joined the United States and other interested countries in signing a Japanese Peace Treaty at San Francisco on Sept. 8, 1951. At the same time the position of the more exposed Commonwealth countries in the Pacific area was safeguarded by the signature of a Security Treaty by the United States, Australia and New Zealand.

* Prepared with the co-operation of the Department of External Affairs, Ottawa.

Developments in China also were among the matters discussed at both Meetings. In regard to recognition of the Chinese communist government, as in all matters of concern to Commonwealth nations, it was understood that each government must take the responsibility of making its own decision. Until mid-1952, the Chinese communist government had been recognized by the three Asian members of the Commonwealth and by the United Kingdom, while the other members of the Commonwealth, including Canada, continued to refrain from recognition.

A new and very serious problem in northeast Asia was created by the invasion of South Korea on June 25, 1950, by North Korean communists. Canada and the other countries of the Commonwealth which were also members of the United Nations supported the action taken by the Security Council to assist South Korean resistance. Most of them, including Canada, contributed armed forces for this purpose. A Commonwealth Division, consisting of United Kingdom, Canadian, Australian and New Zealand combat forces and a medical unit from India, was organized as part of the United Nations forces, and has acquitted itself with distinction. The nations of the Commonwealth, like many other members of the United Nations, have been gravely concerned over the destruction to life and property in Korea, and are contributing to relief and rehabilitation.

The 1951 Meeting of Prime Ministers gave careful attention to the discussions on the Korean problem in particular, and on a Far East settlement in general, which were simultaneously being carried on at the General Assembly of the United Nations at New York, and exchanged views on the means by which their representatives at New York could best assist in these discussions. Close liaison was maintained with the United Nations Assembly.

In a declaration issued at the close of the 1951 Meeting, the Prime Ministers, in addition to urging speedy settlements with Germany and Japan, stated they would welcome any feasible arrangement for a frank exchange of views with Stalin or with Mao Tse-tung, and insisted that they did not seek to interfere in the affairs of the Soviet Union, China or any other country. The Commonwealth countries, it was declared, did not regard themselves as an exclusive body, but welcomed co-operation with other nations. It was recognized, however, that so long as the fear of aggression existed the Commonwealth countries would have to strengthen their defences. Continued support of the United Nations and of the Colombo Plan was affirmed.

Both the 1950 Meeting of Foreign Ministers and the 1951 Meeting of Prime Ministers recognized the influence of economic problems upon the international situation, and gave consideration to these important questions.

One economic problem which was becoming acute in 1951 was the shortage of raw materials, and the consequent maldistribution of manufactured and semi-manufactured goods. The Meeting of Prime Ministers felt that in these circumstances it would be desirable to have closer and more regular consultation among Commonwealth countries on all questions of supply and production. One result of their examination of this problem was the calling of a meeting of Commonwealth Ministers concerned with supply matters, which opened at London on Sept. 24, 1951, and made arrangements to increase the exchange of information both on raw materials and on finished goods, and to facilitate deliveries of manufactured articles to countries of the Commonwealth which might require them.

The deterioration in the United Kingdom's financial situation that took place in the autumn of 1951, and the continuing difficulties of the Sterling Area in general, raised urgent problems for all members of the Commonwealth, not excepting Canada, the only non-sterling member. A meeting of Commonwealth Finance Ministers accordingly took place at London in January 1952, and discussed measures that might be taken to meet the situation. Some of the countries concerned, particularly the United Kingdom and Australia, later took drastic steps to arrest further deterioration in their own position. While some such measures may have been unavoidable in the immediate emergency, discussions on an official level continued with a view to planning for the eventual expansion of trade which appears to be the only satisfactory solution for the whole problem.

International tension, besides adversely affecting the world's economic development during the past three years, also made it necessary to devote to strengthening the defences of Commonwealth countries resources that would normally have been used to increase trade and prosperity. In general, the distribution of the Commonwealth countries through all parts of the world has made it essential to organize their defences on a regional basis providing for full co-operation with friendly foreign countries. As regards North Atlantic defence, for example, Canada and the United Kingdom, as members of the North Atlantic Treaty Organization, have worked together in co-operation with the other members of NATO, while the United Kingdom, the Union of South Africa, and Southern Rhodesia have consulted with other countries interested in the defence of Africa. A Conference of the Defence Ministers of the United Kingdom, Australia, New Zealand, the Union of South Africa and Southern Rhodesia, at which Canada was represented by observers, was held at London in June 1951 to consider defence problems arising in the Middle East and other regions of common concern.

A number of conferences were held to discuss special problems of an economic, scientific or technical character. These included a conference to review the work of the Commonwealth Agricultural Bureaux; meetings on air transport and aeronautical research; gatherings of survey officers, statisticians, auditors-general, and scientists in various special fields; and a British Commonwealth Scientific Conference.

In addition, Canada is represented on such standing bodies as the Executive Council of the Commonwealth Agricultural Bureaux; the Commonwealth Economic Committee; the Commonwealth Shipping Committee; the Commonwealth Telecommunications Board; the Commonwealth Air Transport Council; the Commonwealth Advisory Aeronautical Research Council; the Commonwealth Liaison Committee; the Commonwealth Committee on Mineral Resources and Geology; and the Imperial War Graves Commission.

The Commonwealth Agricultural Bureaux are, for the most part, bodies which collect and distribute information on agricultural research. All of them which are engaged exclusively in this work are located in the United Kingdom. The work of the one in Canada, known as the Commonwealth Bureau of Biological Control, is of a somewhat different nature; it undertakes to control the spread of noxious insects and plants by such means as the collection and distribution of parasites. The work of these Bureaux was reviewed by the Commonwealth Agricultural Bureaux Review Conference, which met at London in June 1950, and made various recommendations for increasing the usefulness of the Bureaux and ensuring co-operation with United Nations organizations and with interested foreign governments. The Canadian Government is represented on the Executive Council of

the Commonwealth Agricultural Bureaux by Dr. H. J. Atkinson and Dr. M. I. Timonin of the Department of Agriculture and Mr. J. G. Robertson of the Office of the High Commissioner for Canada in the United Kingdom.

The Commonwealth Economic Committee issues annual statistics on world production and trade in certain commodities, including dairy produce, meat, fruit and grain crops, and monthly intelligence bulletins on some of these. It has also, from time to time, undertaken special studies on economic questions of interest to Commonwealth governments. The Canadian representative is Mr. F. Hudd of the High Commissioner's Office at London.

The Commonwealth Shipping Committee was established in 1920 for the purpose of making special investigations relating to the co-ordination and improvement of ocean-shipping facilities. It includes representatives of industry as well as of governments. The High Commissioner for Canada in the United Kingdom represents the Canadian Government.

The Commonwealth Telecommunications Board, which operates under the Commonwealth Telegraphs Agreement of 1948, is charged with the duty of making recommendations to Commonwealth governments on joint telecommunications policy, co-ordination of cable and wireless systems, and other telecommunications questions. Canada is represented by Mr. J. H. Tudhope of the High Commissioner's Office at London.

The Commonwealth Air Transport Council is a consultative body for the discussion of civil aviation questions. It issues a quarterly news-letter and holds occasional meetings as required, the latest of which took place at Montreal, Que., in 1950. Mr. J. H. Tudhope is the Canadian member. Canada also participates in an auxiliary regional association, the South Pacific Air Transport Council, which includes the United Kingdom, Australia, New Zealand and Fiji. A meeting of this body was held at Wellington in October, 1951; Canada was represented by the High Commissioner in New Zealand.

The Commonwealth Advisory Aeronautical Research Council is an organization for the promotion of aeronautical research and for discussion and exchange of information on questions of aeronautics. Canadian representatives are Air Vice-Marshal D. M. Smith of the Department of National Defence, and Mr. R. J. Brearley of the High Commissioner's Office, London. A meeting of this body took place at Ottawa, Ont., in September 1950.

The Commonwealth Liaison Committee originated very informally as a means by which United Kingdom government departments could keep the London missions of other Commonwealth countries in touch with developments under the European Recovery Program. Its scope has since been extended to cover other economic matters of mutual interest, in particular the supply and production of raw materials and manufactured goods.

The Commonwealth Committee on Mineral Resources and Geology was set up as a result of a recommendation by the Royal Society Empire Scientific Conference of 1946, which was endorsed by the British Commonwealth Scientific Official Conference of that year, and further developed by the Specialist Conference on Geology and Mineral Resources held in 1948. Its purpose is to promote collaboration and exchange of information on the investigation of geology and mineral resources throughout the Commonwealth. Dr. G. S. Hume of the Department of Mines and Technical Surveys represents the Canadian Government.

The Imperial War Graves Commission was founded in 1917 for the purpose of permanently commemorating those members of His Majesty's forces who lost their lives in World War I. Its powers were later extended to cover World War II. Its chief duty is the establishment and maintenance of cemeteries and memorials. There is a Canadian Agency of the Commission at Ottawa; Colonel D. C. Unwin-Simson of the Canadian Embassy at Paris is the Canadian representative on the Commission.

Bodies such as these form a useful means of exchanging information and views on special economic, scientific or technical questions and of working out recommendations for the consideration of the governments concerned.

Two controversies between Commonwealth governments, both of which arose before 1950, have continued unsolved: the dispute between India and Pakistan over Kashmir and other matters, and the dispute between India and Pakistan on the one hand and the Union of South Africa on the other respecting the treatment in South Africa of persons of Indian origin. Both disputes are before the United Nations, and the Canadian Government and other Commonwealth governments which are members of the United Nations have continued to endeavour, in co-operation with other members of that body, to bring about some solution. In addition, an opportunity was taken during the Meeting of Prime Ministers in 1951 to have informal talks on the Kashmir question by the Prime Ministers of Pakistan and India along with some of the other Prime Ministers, including the Prime Minister of Canada. While these talks had no decisive effect, they did assist in clarifying the position and suggesting possible lines that might be explored in working towards a settlement.

Despite difficulties and problems, the Commonwealth association has, during the period covered by this survey, continued to serve as one of the most effective means of international discussion and co-operation, based in large measure on common traditions, similar political institutions and common ideals.

Subsection 2.—Canada and the United Nations

The early history of the United Nations and of Canada's part therein is given in the 1946 Year Book, pp. 82-86. Additional material appeared in the 1948-49 edition, pp. 122-125, and in the 1950 edition, pp. 134-139. The following material brings the record of Canada and the United Nations up to Feb. 5, 1952, the date of the adjournment of the Sixth Regular Session of the General Assembly.

In political and security questions, the General Assembly became relatively more important in the United Nations, during the period under review, as effective action in the Security Council was more and more frustrated by the Soviet Union veto. The Interim Committee of the General Assembly did not play the important role that had been anticipated. It met in 1949 and in 1950 without making any major recommendations. It did not meet in 1951, for the procedural reason that the Fifth Session of the Assembly remained technically in session until the day before the convening of the Sixth Session. No new subjects were assigned to the Interim Committee by the Sixth Session of the Assembly.

Canada has continued to take an active part in United Nations deliberations both in the General Assembly and in important subsidiary bodies and, as a member, its contribution has been important in the social, economic and humanitarian activities. Canada completed a two-year term on the Security Council at the end

of 1949 and a term of membership on the Economic and Social Council at the end of 1948; after a year's absence, Canada was elected to a further three-year term on the latter Council commencing Jan. 1, 1950. Canada is a member of all specialized agencies of the United Nations and of the following functional commissions of the Economic and Social Council: the Commission on Narcotic Drugs, the Social Commission, the Fiscal Commission and the Statistical Commission.

Canadian delegations attended all sessions of the General Assembly during the period 1949-51—the second part of the Third Session in April and May 1949, and the Fourth, Fifth and Sixth Regular Sessions in 1949, 1950 and 1951. The Secretary of State for External Affairs acted as chairman of the delegation at each of these Sessions; at the Sixth Session, the Minister of Justice assumed the chairmanship after Jan. 2, 1952.

During the period 1949-51, only two new members were admitted to the United Nations—Israel on May 11, 1949, and the Republic of Indonesia on Sept. 28, 1950. The applications of such states as Ceylon, Ireland, Italy and Portugal were vetoed by the Soviet Union Representative in the Security Council.

The Korean Conflict.—The Soviet Union, which since the previous January had been boycotting the Security Council over the question of Chinese representation, was absent from the Council on June 25, 1950, when North Korean forces attacked across the 38th parallel. With no Soviet veto to frustrate its actions, the Security Council was able to take quick and decisive measures. It convened, on United States initiative, on the day of the attack and adopted a resolution calling for the cessation of hostilities and the withdrawal of North Korean forces to the 38th parallel. When this resolution was ignored by North Korea, other Council resolutions followed quickly, recommending that member states furnish the Republic of Korea with such assistance as might be necessary to repel the armed attack, and setting up a Unified Command. The United States took the initiative throughout the crisis, committing first sea and air forces and then ground forces to the area. An overwhelming majority of the United Nations, including Canada, subsequently approved the Security Council's actions, and a smaller but still substantial number (including Canada) contributed armed forces to the United Nations Command.

Throughout the summer of 1950, United Nations troops fell back before the initial strength of the North Korean attack. However, the tide turned with the Inchon landing of Sept. 15, and the rapid advance of United Nations troops up the peninsula raised new and urgent problems. Meanwhile the Soviet Union had returned to the Security Council on Aug. 1 and had, as expected, prevented further constructive action by that body. This was the situation that faced the Fifth Session of the General Assembly when it convened at New York on Sept. 19, 1950.

On Oct. 7, the Assembly adopted a resolution establishing a seven-member United Nations Commission for the Unification and Rehabilitation of Korea. As plans for the implementation of the resolution were being worked out, however, Chinese communist troops intervened in force in Korea, in the guise of "volunteers". This led to renewed debate in the Security Council and the vetoing by the U.S.S.R. on Nov. 30 of a resolution calling for the withdrawal of Chinese communist troops from Korea. The General Assembly, on Dec. 14, 1950, set up a "Cease-fire Group" to explore the possibilities of a cease-fire, meanwhile refraining from condemning the Chinese communist aggression.

The Cease-fire Group, of which the Canadian Secretary of State for External Affairs was a member, submitted a statement of principles, early in January 1951, to serve as a basis for settlement of the Korean dispute and other Far Eastern problems. These were transmitted to the Chinese communist authorities. The reply of the Communist Chinese Foreign Minister was not regarded as satisfactory and on Feb. 1, 1951, a resolution condemning the Peking Government's aggression was adopted by a large majority of the members of the General Assembly, including Canada.

Military operations continued and it became apparent that a military stalemate might come about, with the United Nations forces in control up to approximately the 38th parallel. Following an indication by the Soviet representative to the United Nations that cease-fire discussions might now be usefully initiated, messages were exchanged between the military commanders in Korea, and representatives of the opposing forces met on July 10, 1951. Cease-fire negotiations continued until Aug. 22. They were renewed on Oct. 25, and agreement was reached Nov. 27, 1951, on the principles which should govern the definition of a cease-fire line, but on other issues, especially the exchange of prisoners of war, the negotiators remained deadlocked. The Sixth Session of the General Assembly, before its adjournment of Feb. 5, 1952, authorized the Secretary-General to convene a special session of the Assembly on the conclusion of an armistice or in the event of other developments in Korea.

The United Nations took early action for the relief of the suffering caused by the Korean conflict and for the reconstruction of the country when circumstances might permit. In the autumn of 1950 the General Assembly, and the Economic and Social Council which was meeting concurrently in special session, established the United Nations Korean Reconstruction Agency (UNKRA). A five-member committee, on which Canada was represented, was set up to advise UNKRA's Agent-General. Canada was among the first and most substantial contributors to UNKRA.

Collective Measures.—On Nov. 3, 1950, the General Assembly adopted a resolution on "Uniting for Peace". This resolution provided that if the Security Council, because of lack of unanimity among the permanent members, failed to act in a situation that endangered peace, the General Assembly, if not in session, might be convened on 24 hours notice (a) by request of the Security Council (on the vote of any seven Council members), or (b) by request of a majority of the members of the United Nations. The Assembly at the same time established a Peace Observation Commission to observe and report in areas of international tension, and a Collective Measures Committee to study and report on the measures, including political, economic and military measures, which the United Nations might use to maintain and strengthen international peace and security, taking account of collective self-defence and regional arrangements. Canada became a member of the Collective Measures Committee.

In January 1952, the General Assembly, taking note of the report of the Collective Measures Committee, directed the Committee to continue its studies for another year. Member states were also asked to include within their armed forces units available for service with the United Nations.

Disarmament.—The deadlock in both the Atomic Energy Commission and the Commission for Conventional Armaments continued to the end of 1951. This deadlock was due to the persistent Soviet demands for an immediate prohibition

of atomic weapons and for a one-third reduction in the armed forces of the Great Powers. Western governments opposed both demands, the first because no proposals for adequate atomic inspection, verification and control had been accepted by the U.S.S.R., and the second because the existing disparity between the armed forces of the communist world and those of the free world made it impossible for the democracies to accept a formula which would perpetuate the present dangerous unbalance.

On Dec. 13, 1950, the Assembly created a committee to study the advisability of merging the Atomic Energy and the Conventional Armaments Commissions. Canada, which had been one of the sponsors of the proposal, was made a member of this committee. In accordance with the recommendations of the committee the Assembly on Jan. 11, 1952, established a Disarmament Commission, under the Security Council, to replace the two previous Commissions. The new Commission, given the same membership as the former Atomic Energy Commission (that is, the eleven members of the Security Council, plus Canada), was directed to prepare proposals for inclusion in a draft treaty or treaties, respecting the regulation, limitation and balanced reduction of all armed forces and armaments, and the effective international control of atomic energy.

Palestine.—During the period 1949-51, the Palestine Conciliation Commission had little success in its efforts to bring about agreement on the differences between Israel and its neighbours. In 1950, the Assembly noted with concern that progress was not being made and the Sixth Session of the Assembly, in January 1952, adopted a resolution asking the Conciliation Commission to continue its work. This resolution was supported by the Canadian delegation, which had succeeded in formulating amendments making it acceptable to both Israel and the Arab states. It was felt that, with both sides concurring, the resolution had some hope of success.

Another important problem which occupied the Assembly in this connection was that of Palestine refugees. In the autumn of 1948, a fund was established under the name of United Nations Relief for Palestine Refugees. At the end of 1949 a more permanent relief agency was established, entitled the United Nations Relief Works Agency for Palestine Refugees in the Near East (UNRWAPR). This Agency was continued by the General Assembly in 1950 and, in January 1952, the Sixth Session endorsed a program envisaging the expenditure of large sums of money for relief and reintegration during a three-year period ending June 30, 1954. Canada has supported United Nations action to assist Palestine refugees and has made substantial contributions to UNRWAPR.

Indonesia.—The year 1949 saw the settlement of the Indonesian problem, despite the fact that an early solution appeared unlikely. In January 1949, the Security Council called for an immediate end of hostilities and the release of political prisoners, and replaced its Committee of Good Offices by a United Nations Commission for Indonesia with broad powers to act as the Council's representative. A Security Council directive of Mar. 23, 1949, sponsored by Canada, resulted in a meeting of representatives of the opposing forces, and substantial agreement was reached by early May. In the following weeks, Netherlands forces were withdrawn from the Indonesian capital, political prisoners were released and a general ceasefire was proclaimed on Aug. 28. A Round Table Conference, including the Netherlands and Indonesian representatives and the United Nations Commission, met at The Hague from Aug. 23 to Nov. 2. As a result of the agreement

reached, full sovereignty was transferred to the Government of the Republic of the United States of Indonesia at the end of December 1949, and the two countries became partners in the Netherlands-Indonesian Union. Indonesia became a member of the United Nations in September 1950, its application being sponsored by the Netherlands.

Berlin.—The Berlin blockade was still on the agenda of the Security Council at the end of 1948, but the subject was not formally discussed in the United Nations in 1949. The blockade was lifted on May 12, 1949, not directly because of United Nations action but as a result of long negotiations between the Western Powers and the U.S.S.R. which, however, began with an informal exchange of views between the United States and Soviet representatives at the United Nations.

Other Political Questions.—Other questions that occupied the United Nations in the period 1949-51 included Greece and the repatriation of Greek children, the dispute between India and Pakistan over Kashmir, the treatment of people of Indian origin in the Union of South Africa, the problem of South-West Africa, various questions regarding trust and non-self-governing territories (chiefly in Africa), the complaint by Yugoslavia of "hostile activities" by the cominform states, the violation of human rights in Bulgaria, Hungary and Roumania, and the disposal of the former Italian colonies. (Libya achieved independence on Dec. 24, 1951, and was immediately recognized by Canada.)

The Economic and Social Council.—The most notable achievement of the Economic and Social Council in 1949 was its elaboration of an expanded United Nations program for technical assistance to under-developed countries, unanimously approved by the General Assembly at its Fourth Session. Canada has contributed generously to the expanded program. The Council was given continuing responsibility for the co-ordination of the related programs of the various specialized agencies. The whole question of helping the economically under-developed countries of the world to help themselves continued to command a large share of the Council's attention in 1950 and 1951. In 1951, the Council considered the possibility of establishing an international development authority to be concerned with the distribution of grants and loans to under-developed countries. The subject came before the Sixth Session of the General Assembly and will be further studied by the Economic and Social Council.

In the social field, methods for furthering international recognition and observance of human rights and fundamental freedoms have occupied a great deal of the time, not only of the Economic and Social Council's Commission on Human Rights, but also of the Council itself and of the General Assembly. There have been two phases to this question. First, the General Assembly adopted, in December 1948, a Declaration of Human Rights, which carries great moral weight but is not an enforceable instrument. In the second place, work has been proceeding on the preparation of a covenant or covenants on human rights which would be legally binding on governments acceding to them. The Fifth Session of the General Assembly in 1950, examining a draft covenant submitted by the Human Rights Commission through the Economic and Social Council, concluded that the covenant should be broadened to contain economic, social and cultural rights, as well as basic political rights. The question of whether these economic, social and cultural rights should be included in the same covenant as traditional civil liberties, or in a second covenant, was considered by the Economic and Social Council at its Thirteenth

Session in 1951. The majority of the Council members, including Canada, decided that two fundamentally different types of "rights" were involved, requiring different methods of implementation, and requested the General Assembly to reconsider its decision to include them in the same instrument. After long debate, the Assembly decided that the Commission on Human Rights should be asked to draft two covenants. The Canadian delegation supported this decision but, believing that much of the material suggested for inclusion in the second covenant amounted to statements of governmental responsibility or of long-term policy objectives, doubted whether these objectives, however desirable, should be written into a legally binding international convention. The Sixth Session of the Assembly requested the Economic and Social Council to hold a special session for the purpose of transmitting its directives to the Human Rights Commission so that the two draft covenants might be available for consideration at the Seventh Session.

Among the subjects that occupied the Economic and Social Council during this period were the world economic situation in general, various regional economic questions, full employment, freedom of information, forced labour and refugees.

Specialized Agencies.—An eleventh specialized agency of the United Nations, the World Meteorological Organization, started functioning in 1951. At the same time, arrangements were made to terminate the International Refugee Organization early in 1952. Continuing problems in connection with refugees will be the concern of the office of the United Nations High Commissioner for Refugees, which was established by the General Assembly in December 1950. The proposed International Trade Organization and the Inter-governmental Maritime Consultative Organization have not yet come into existence.

Subsection 3.—Canada and the North Atlantic Treaty

Within less than two years of the signing at San Francisco of the Charter of the United Nations in 1945, the hopes of people everywhere for universal peace had given place to growing anxiety. The Security Council, which had been given primary responsibility for the maintenance of security, was already hamstrung by the deliberate tactics of the Soviet representatives. The encouragement of communist régimes in countries under control of the Red Army, and activities in other countries, particularly in Western Europe, provided ample evidence of the imperialistic designs of the Soviet Union. Under these circumstances nations that found themselves in common danger of aggression were driven to seek security by special co-operation in defensive measures.

A major step in the search for security by Western nations was taken in the spring of 1948 when the United Kingdom, France, The Netherlands, Belgium and Luxembourg signed at Brussels a treaty providing for their collective self-defence. In the months that followed there were many signs that determined efforts by Western European nations to co-operate for defence would find a ready response in North America. Beginning with the summer of 1948, the Ambassadors of the Brussels Treaty Powers and Canada began holding informatory and exploratory talks at Washington with representatives of the United States. Representatives of other North Atlantic countries were invited to the discussions at a later stage and, on Apr. 4, 1949, the North Atlantic Treaty was signed by twelve nations—Belgium, Canada, Denmark, France, The Netherlands, Iceland, Italy, Luxembourg, Norway,

Portugal, the United States and the United Kingdom. The Treaty was accepted by all major groups of opinion in Canada, and it was passed without a single dissenting vote in Parliament.

In 1952 two important steps were taken to extend the coverage of the Treaty. Greece and Turkey were admitted to membership and their territories were thereby included in the area guaranteed by the Treaty. Various agreements bringing the Republic of Western Germany into defence arrangements with the West were also required, but these will not become effective until ratified. Under these agreements a European Defence Community with a European Army is to be established. Germany will be a member of the EDC along with France, Italy, Belgium, The Netherlands and Luxembourg, and the armed forces in Europe of each of these countries will be part of a European Army which will be under NATO command. Germany will not be a member of the North Atlantic Treaty, although its territory and independence will be guaranteed by all NATO powers.

The Treaty.—The North Atlantic Treaty in its preamble reaffirms the faith of the Parties in the purposes and principles of the Charter of the United Nations, and declares that the Parties “are determined to safeguard the freedom, common heritage and civilization of their people, founded on the principle of democracy, individual liberty and the rule of law”; that “they seek to promote the stability and wellbeing of the North Atlantic area”; and that “they are resolved to unite their efforts for collective defence and for the preservation of peace and security”.*

The defence aspects of the Treaty are covered mainly by Articles 3, 4 and 5. Article 3 provides in part that “The Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack”. Article 3 provides also that “wherever in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened”, they will consult with one another. By Article 5, the Parties agree that an armed attack against any of them shall be deemed an attack against all, and that in the event of such an attack, each will assist the Party or Parties so attacked by taking, individually and in concert with the others, “such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area”.

A fourth basic article is Article 2. This Article, which was largely promoted by Canada, declares:

“The Parties will contribute toward the further development of peaceful and friendly international relations by strengthening their free institutions, by bringing about a better understanding of the principles, upon which these institutions are founded, and by promoting conditions of stability and well-being. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them.”

The course of events since the Treaty was signed has compelled members to give priority to defence and security; nevertheless Article 2 is important, as the affirmation of a long-term objective.

The Treaty Organization (NATO).—Unlike the United Nations Charter, the North Atlantic Treaty has little to say about organization. Article 9 of the Treaty provides merely for the establishment of a Council “to consider matters

* Article 1 further makes clear that the Treaty does not conflict with the United Nations Charter but rather supplements it.

concerning the implementation of this Treaty", and empowers the Council to set up such subsidiary bodies, including a defence committee, as may be necessary to achieve the purposes of the Treaty. This very general provision left the Council free to adapt the organization to meet the needs as they arise.

The Council is the supreme governing body of NATO. The chairmanship rotates annually in alphabetical order of member countries. At the seventh meeting of the Council at Ottawa in September 1951, the Hon. L. B. Pearson, Canadian Secretary of State for External Affairs, became Chairman for the following year.

At an early stage, the Council, which consisted of all the Foreign Ministers of the Parties to the Treaty, established a committee of Defence Ministers, a committee of Finance Ministers, a Military Production Board of high officials representing each government, as well as other subordinate civil bodies and an elaborate structure of military bodies. The Council met as occasion required in various national capitals. These arrangements were found to be rather unwieldy and, at the Lisbon meeting of the Council in February 1952, it was agreed that the civil organization be located permanently at Paris, that the Council operate as a permanent body, and that the members be represented at the seat of the Council by a permanent delegation. It was further agreed that all NATO activities be brought under the control of the Council, and that a strong secretariat be established under a Secretary General who would be Vice-Chairman of the Council and could serve in the absence of the Chairman. These measures were implemented shortly thereafter.

Military Organization.—The Military Committee, on which each member country is represented by one of its Chiefs of Staff, is the senior military organ of the Alliance and comes directly under the Council. It is responsible for providing that body with military advice and receives from it political guidance which is passed on to Supreme Commanders by the Standing Group. As in the case of the Council, the chairmanship of the Military Committee rotates annually in the alphabetical order of NATO countries.

The Standing Group, as its name implies, is a permanent body. It is composed of the Chiefs of Staff of the three major contributors to NATO—the United States, United Kingdom and France—and is responsible for the continuing work in the military sphere. It is located at Washington and gives strategic and political guidance to the Supreme Commanders who come under its orders. The eleven other members of NATO are associated with Standing Group work through a Committee of Military Representatives at Washington consisting of representatives of the Chiefs of Staff of the other member countries. This makes it possible for all to be kept in constant touch with developments.

Direct military command in NATO is exercised by Supreme Commanders. In 1950, General Dwight D. Eisenhower was appointed the first Supreme Allied Commander, Europe, responsible for the defence of Western Europe. He remained in office a little over a year when he resigned and was succeeded by General Matthew Ridgway. Early in 1952 Admiral L. D. McCormick, USN, was appointed Supreme Commander, Atlantic, responsible for the defence of the lines of communication across the Atlantic Ocean. His headquarters are at Norfolk, Va.

The third major strategic division within the area covered by the North Atlantic Treaty is the Canada-United States region. As yet it has no organized command nor is one contemplated for the time being, but defence plans for this area are continuously under study by the Canada-U.S. Regional Planning Group.

Each of the Supreme Commands has an integrated staff to which Canadian officers have been appointed.

Canada's Contributions to NATO.—NATO planning follows to a considerable degree the principle of division of responsibility among member nations. European members, for example, whose territory would be exposed to early attack in the event of war, are expected to concentrate largely on ground forces, including reserves which can be made ready quickly for battle; the United States is responsible for strategic air forces; the principal naval members—the United States, the United Kingdom, and France—provide by far the major portion of naval forces. NATO planning also takes into account that some members have heavy responsibilities outside the NATO area and therefore cannot commit all their forces to NATO commands, at least in peacetime. France, for example, has been conducting major military operations in Indo-China; the United Kingdom has heavy responsibilities in the Middle East, in Malaya and elsewhere; and the United States has extensive commitments in the Pacific area and other regions.

Under agreed NATO plans, Canada contributes to the standing NATO forces in all three armed services. The 27th Infantry Brigade, which was specially organized for NATO purposes, was stationed in Western Germany in the late autumn of 1951. During 1952, Canada plans to station four fighter squadrons of the RCAF in Western Europe, assuming airfields will be available, and to increase these forces to twelve squadrons by 1954. By the end of 1952, twenty-four ships of the Royal Canadian Navy will form part of the forces available to the Supreme Allied Commander, Atlantic (SACLANT), and fifty-two ships by 1954. Canada's prime responsibility is, however, the direct defence of Canadian territory. As already pointed out, no NATO command has been established for the North American region. Consequently, Canadian forces allocated for the direct defence of Canada have not been allocated to a NATO command, although in fact they are defending territory expressly included under the North Atlantic Treaty. Moreover, Canada, as a member of the United Nations, has a Brigade Group participating in halting aggression in Korea, and Canadian forces engaged in those operations could not properly be withdrawn and made available to NATO as long as United Nations operations continue in Korea.

Mutual Aid.—Canada has also made substantial contributions to NATO in the form of Mutual Aid. As pointed out previously, by Article 3 of the Treaty the member nations have undertaken to maintain and develop their individual and collective capacity to resist armed attack "by means of continuous and effective self-help and mutual aid". They have undertaken to build up their own forces and to assist one another to do so in order to resist armed attack. At an early stage, the United States Congress passed large appropriations to assist the re-arming of other countries and much larger appropriations have since been made. At the special session of the Canadian Parliament in September 1950, an appropriation of \$300,000,000 was passed for similar purposes, and a second appropriation of \$325,000,000 was made in 1952. By means of this appropriation it was possible to transfer, free of charge, to other members of NATO considerable quantities of

existing stocks of armament and ancillary equipment which the Canadian Army had been keeping as mobilization reserves. The Canadian Army will be re-equipped by production of new equipment in Canada or purchase from the United States. Armament and equipment for approximately one infantry division was thus given away during 1950-51 to each of Belgium, Holland and Italy following recommendations of the NATO Standing Group, and later considerable quantities of ammunition and armament, such as field and anti-aircraft guns, were given away to various NATO countries. In addition, contracts were let for the production for other NATO countries of such equipment as fighter aircraft, guns, mine-sweepers, and walkie-talkies and other electronic supplies.

Under the Mutual Aid vote, provision was made for the training of aircrew for other NATO countries. This involved the re-opening of many airfields in Canada, the acquisition of large quantities of training equipment and the establishment of a large training staff. By the spring of 1952 about 1,000 aircrew were being trained for other NATO countries while training facilities for the following year were planned to accommodate about 1,400 trainees.

Subsection 4.—Canada and the Colombo Plan

The Colombo Plan for Co-operative Economic Development in South and Southeast Asia was conceived at the Commonwealth Meeting on Foreign Affairs held at Colombo, Jan. 9-14, 1950. Further meetings were held during the same year and in October a report on the Colombo Plan was published which gave a comprehensive picture of the economic requirements and potential resources of the region and the need for external assistance.

Although the Colombo Plan was initiated by Commonwealth governments, it is not exclusively a Commonwealth program. It is designed to assist in the economic development of all countries and territories in the general area of south and southeast Asia.

The Consultative Committee, an intergovernmental body which meets from time to time to review the progress of the Colombo Plan and to consider policy matters in connection with its implementation, now counts as members Australia, Burma, Cambodia, Canada, Ceylon, India, Laos, New Zealand, Pakistan, the United Kingdom and Viet-Nam, as well as the United States which is also engaged in a substantial program of economic aid in the same region.

The Canadian Parliament approved a contribution of \$25,000,000 for capital assistance to governments in south and southeast Asia during 1951-52 and it was subsequently decided that, for this first year of operation of the Colombo Plan, Canadian aid would be divided between India and Pakistan.

At the request of the Government of India, the Canadian Government agreed to allot \$10,000,000 for the provision of wheat to India under the Colombo Plan. The wheat was shipped from Canadian west coast ports during the winter and early spring of 1952. The Indian Government undertook to establish a special counterpart fund equivalent in rupees to the \$10,000,000 expenditure by the

Canadian Government in respect of the wheat, the counterpart funds to be used for the internal financing of economic development projects approved by both Governments. It was agreed that the counterpart funds for the wheat should be used to help finance the Mayurakshi irrigation and hydro-electric project in West Bengal and it was estimated that this work when completed would increase the arable land by 600,000 acres and produce some 4,000 kw. of electric energy. Most of the remaining funds available to India under the 1951-52 program were earmarked for the provision of vehicles to the Bombay State Transport Corporation.

The main project in the Canadian program for Pakistan is a cement plant to be built in the Thal area of the Punjab where a large-scale colonization project is being undertaken by the Pakistan Government. Except for local labour and material, Canada is providing all the equipment, materials and technical personnel necessary for the construction of the plant.

The Canadian, Australian and New Zealand Governments together have agreed to establish and equip an experimental live-stock farm at Thal, the Canadian contribution to this joint project being agricultural machinery and related equipment. The Canadian program for Pakistan also includes such items as a large quantity of wooden railway-ties to be supplied from British Columbia for the urgently needed rehabilitation and development of the Pakistan railway system, and a geological survey, including an aerial photographic unit, which should be of far-reaching benefit to Pakistan in the development of its natural resources.

Another important aspect of the Colombo Plan is the provision of technical assistance to governments in the area. To develop this side of the program, a Council for Technical Co-operation has been set up at Colombo to which Canada has appointed a permanent representative. The Technical Co-operation Program, though an integral part of the Colombo Plan, is designed to supplement the technical assistance activities of the United Nations and the specialized agencies in the area.

For each of the years ended Mar. 31, 1951 and 1952, Parliament authorized appropriations of \$400,000 for technical co-operation under the Colombo Plan. Because of the inevitable delays in the early stages of a program of this kind, these amounts were not fully used. However, the program has been steadily increasing its pace and it is expected that the appropriation of \$400,000, which Parliament made for 1952-53, will be completely taken up.

Up to Mar. 31, 1952, 58 Fellows and scholars from India, Pakistan and Ceylon, had come to Canada for training in such widely varied fields as road and bridge construction, hydro-electric development, public administration, public health and welfare, and agriculture. During the same period, three technical missions, each composed of senior government officials from India and Pakistan, were conducted on observation tours across Canada to study Canadian methods in highway and bridge construction, agriculture, and hydro-electric power installation and development. The greatest difficulty in providing technical assistance has been encountered in locating Canadian experts for service abroad. However, a fisheries consultant from British Columbia has been in Ceylon for some time, assisting the government

in the development of the fishing industry, and a refrigeration engineer is also working in Ceylon in the same field. In addition, the Canadian Government is paying the expenses of a survey being undertaken in Pakistan by the Commonwealth Biological Control Service with a view to setting up a biological control station in that country.

The Consultative Committee on the Colombo Plan held its fourth meeting at Karachi, Pakistan, in March 1952, which was attended by a Canadian delegation led by Mr. George J. McIlraith, M.P. Its main task was to prepare a report on the achievements of the Plan during 1951-52. This Report* outlines the progress made and the plans for 1952-53, and it contains separate sections describing the activities of each member of the Colombo Plan, whether a contributing or a receiving country.

Satisfied that the Plan is operating on a sound basis, Parliament approved a further contribution of \$25,000,000 to provide Canadian economic aid under the Colombo Plan during the fiscal year 1952-53.

*Obtainable from the Queen's Printer, Ottawa.

CHAPTER III.—POPULATION*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The records accumulated at the decennial censuses of Canada since Confederation in 1867 to the latest census, 1951, make a valuable contribution to the demographic history of the nation. Each successive decade has added to the vast scope of the material; the detailed statistical analyses and the numerous monographs and studies available under the several aspects of demography and agriculture have made the census a most important statistical measure of accomplishment and progress. An outline of the history of the census is given in the Year Book 1947, pp. 96-97.

The main legal reason for a periodic census under the constitution of Canada is to determine representation in the House of Commons; this, according to the British North America Act, is based on population (*see* pp. 51-52). The payment of provincial subsidies on a per capita basis is adjusted annually on population estimated from census data. In view of this, each person is counted as belonging to the locality of his regular domicile rather than to the place where he may be at the date of enumeration.

The modern nation-wide census, however important this redistribution purpose, has a much wider sphere of usefulness. It constitutes, through the data collected directly from the people, a true measure of the social and economic progress of the country and can, therefore, be used in the regulation and general administration of public affairs, social security and rehabilitation programs, etc.

At the time of the preparation of this Chapter (July 1952), only the basic figures from the 1951 Census were available and these have been summarized under the respective headings so far as possible. More detailed information and extended analyses will be published from time to time and can be obtained from census publications.

* This Chapter has been revised in the Census (Demography) Division, Dominion Bureau of Statistics.

Section 1.—Growth of the Population

A brief résumé of the population history of Canada from the first census in 1666, when 3,215 persons were enumerated, to the Census of 1951, when the figure was 14,009,429, places Canada among the leading countries of the Commonwealth in the rate of population growth. The total population of Canada at the end of the nineteenth century was approximately 5,400,000; it had about doubled this figure by 1931. The general increase in the population of European countries during the entire nineteenth century was approximately three-fold; Canada equalled this rate of progress during the 60 years from 1871 to 1931.

In the decade 1901-11 immigration alone totalled 1,800,000. This figure was the main factor in the gain of 34·2 p.c. registered by the total population of Canada in that decade, which was relatively larger than the growth of any modern country during the same period.

The next decade started out with an intensification of this immigration movement, but a recession set in with the outbreak of World War I. The effects of that War upon the Canadian population were both direct and indirect. Nearly 60,000 members of the Canadian forces died overseas and approximately 20,000 others took their discharge in the United Kingdom. To these may be added 50,000 deaths from the war plague, influenza. In addition, large numbers of British Isles residents, most of them recent immigrants, left Canada to join the armed forces of the United Kingdom and did not return; the same is true of enemy nationals who passed in considerable numbers into the United States immediately before and after the declaration of hostilities. The fluidity of the Canadian population accordingly rendered the War costly in personnel far beyond actual casualties. However, the net result over the ten years was a population increase of 21·9 p.c. or the largest increase for any modern country in that decade with the exception of Australia where an increase of 22·0 p.c. was recorded.

The Census of 1931 showed a further population increase of 18 p.c. over 1921. Natural increase and immigration contributed 1,325,256 and 1,509,136, respectively, although the net gain was only 1,588,837 since estimated emigration was 1,245,555 for the ten years. Census returns of Great Britain for 1921-31 showed an increase of 4 p.c. as compared with 5 p.c. for the previous decade. New Zealand in the ten-year interval 1911-21 showed an increase of 21 p.c. and in the period 1921-36, 23 p.c. A census of Australia was not taken in 1931, but the official estimate of population based on the Census of 1933 gave an increase of 20 p.c. as against 22 p.c. for the period 1911-21. Census figures for the United States showed an increase in population of 15 p.c. for 1910-20, 16 p.c. for 1920-30 and 7 p.c. for 1930-40.

The Eighth Census of Canada taken June 2, 1941, gave the population as 11,506,655 as compared with 10,376,786 as at June 1, 1931, an increase of 1,129,869 or 11 p.c. in the decade. During the greater part of this decade, Canada, along with all other countries, was faced with a prolonged and severe economic depression; immigration was still further restricted by government regulations as well as by economic necessity. The figures for immigrant arrivals were actually reduced from 1,166,004 in the ten-year period 1921-31 to 140,361 in 1931-41. The natural increase for this period showed a reduction of about 11 p.c. and, since immigration was reduced more than 88 p.c. over the decade, the net increase in population was due almost entirely to the favourable birth and death rates of the established population.

GROWTH IN CANADA'S POPULATION, 1851 - 1951

MILLIONS

14

12

10

8

6

4

2

0

NEWFOUNDLAND

ALTA

SASK

MAN

B.C.

THE TERRITORIES

ONTARIO

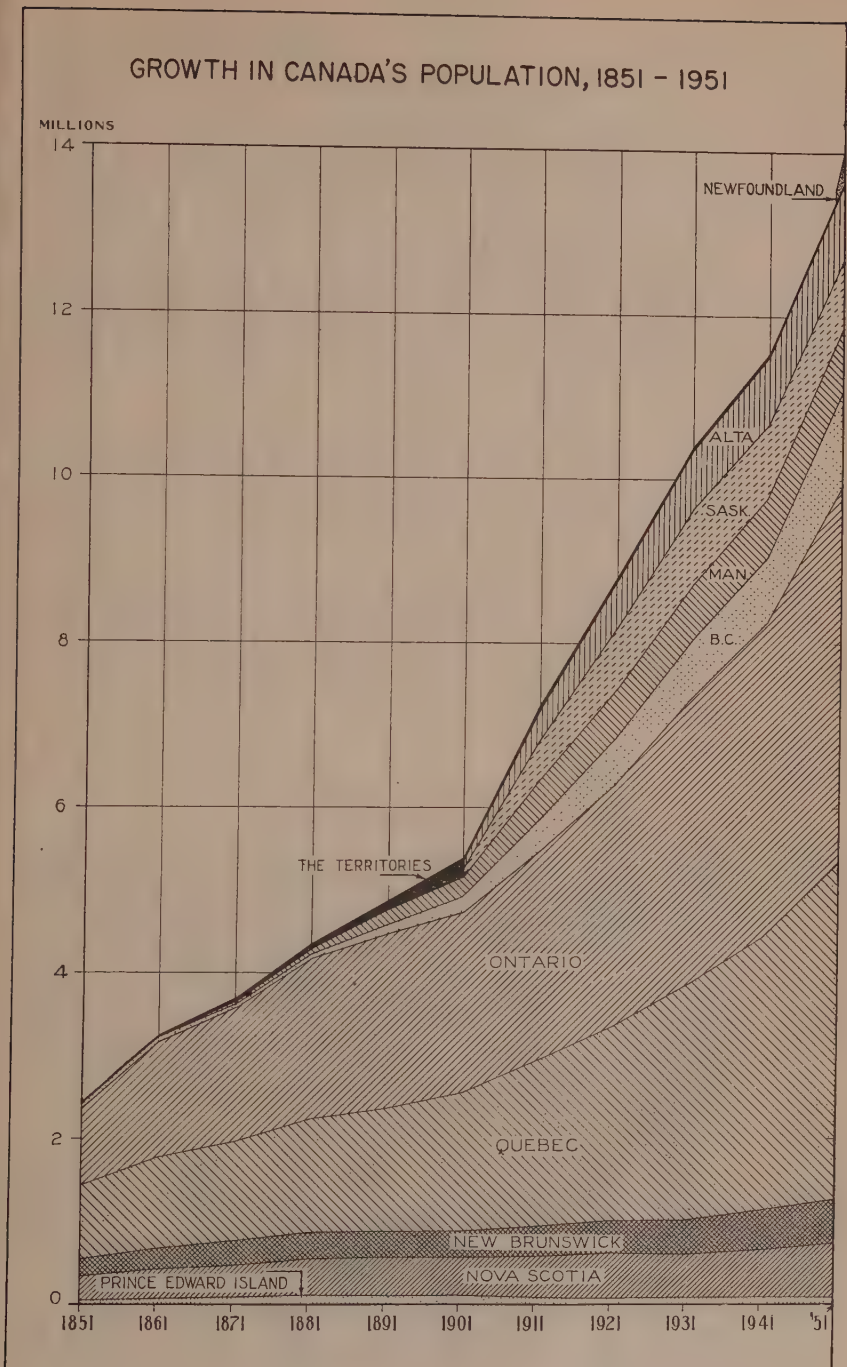
QUEBEC

NEW BRUNSWICK

NOVA SCOTIA

PRINCE EDWARD ISLAND

1851 1861 1871 1881 1891 1901 1911 1921 1931 1941 '51



The Ninth Census of June 1, 1951, showed the population of Canada to be 14,009,429, representing an increase of 2,502,774 or 21.8 p.c. over the 1941 figure of 11,506,655. Newfoundland's entry into Confederation accounted for 361,416 of this increase. Excluding Newfoundland, the population in 1951 totalled 13,648,013, an increase of 2,141,358 or 18.6 p.c. over the 1941 population of the nine provinces and the territories. This numerical increase is the largest on record and the percentage increase has been exceeded only twice since the turn of the century. In 1921 it was 21.9 p.c. and in 1911, 34.2 p.c. The population increase in this decade is all the more remarkable when consideration is given to the fact that immigration was heavily restricted during the war years. With the resumption of immigration in the post-war years, however, Canada gained some 548,000 in population through immigrant arrivals over the decade. The period 1941-51 was characterized also by high birth rates, and the natural increase was just under 2,000,000 for the ten-year period.

Since 1867, decennial censuses have been taken as at Apr. 2, 1871, Apr. 4, 1881, Apr. 5, 1891, Apr. 1, 1901, June 1, 1911, 1921, 1931, June 2, 1941, and June 1, 1951. Population totals by provinces and territories are given in Table 1, together with figures showing the percentage distribution of population and the numerical and percentage increases in population by decades.

1.—Numerical and Percentage Distribution and Numerical and Percentage Increase of Population, by Provinces and Territories, Decennial Census Years 1871-1951

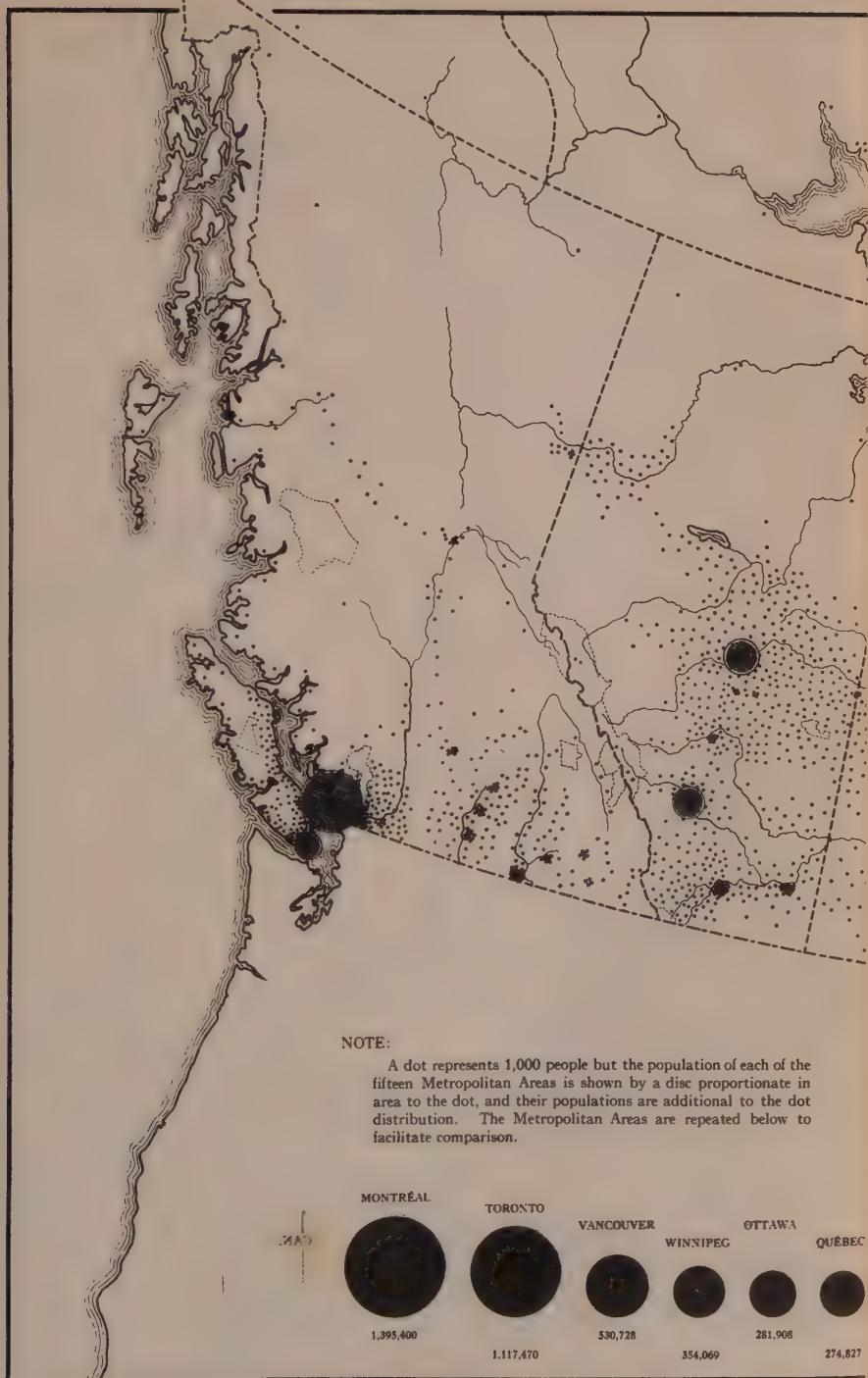
NOTE.—The populations of the Prairie Provinces in 1906, 1916, 1926, 1936 and 1946 are shown at p. 131 of the 1951 Year Book. Intercensal estimated populations from 1867-1904 will be found at p. 141 of the 1936 Year Book; from 1905-30 at p. 127 of the 1946 edition; and from 1931-52 in Table 9, p. 143, of the present edition.

Province or Territory	1871	1881	1891	1901	1911	1921	1931	1941	1951
NUMERICAL DISTRIBUTION									
Nfld.....	1	1	1	1	1	1	1	1	361,416
P.E.I.....	94,021	108,891	109,078	103,259	93,728	88,615	88,038	95,047	98,429
N.S.....	387,800	440,572	450,396	459,574	492,338	523,837	512,846	577,962	642,584
N.B.....	285,594	321,233	321,263	331,120	351,889	387,876	408,219	457,401	515,697
Que.....	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776	2,360,510	2,874,662	3,331,882	4,055,681
Ont.....	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292	2,933,662	3,431,683	3,787,655	4,597,542
Man.....	25,228	62,260	162,506	255,211	461,394	610,118	700,139	729,744	776,541
Sask.....	...	...	...	91,279	492,432	757,510	921,785	895,992	831,728
Alta.....	...	...	...	73,022	374,295	588,454	731,605	796,169	939,501
B.C.....	36,247	49,459	98,173	178,657	392,480	524,582	694,263	817,861	1,165,210
Yukon.....	...	...	...	27,219	8,512	4,157	4,230	4,914	9,096
N.W.T.....	48,000	56,446	98,967	20,129	6,507	8,143	9,316	12,028	16,004
Canada....	3,689,257	4,324,810	4,833,239	5,371,315	7,206,643	8,787,949	10,376,786	11,506,655	14,009,429
PERCENTAGE DISTRIBUTION									
Nfld.....	...	...	...	...	...	...	...	...	2.58
P.E.I.....	2.55	2.52	2.25	1.92	1.30	1.01	0.85	0.83	0.70
N.S.....	10.51	10.19	9.32	8.56	6.83	5.96	4.94	5.02	4.59
N.B.....	7.74	7.43	6.65	6.16	4.88	4.41	3.94	3.97	3.68
Que.....	32.30	31.42	30.80	30.70	27.83	26.86	27.70	28.96	28.95
Ont.....	43.94	44.56	43.74	40.64	35.07	33.39	33.07	32.92	32.82
Man.....	0.68	1.44	3.16	4.75	6.40	6.94	6.75	6.34	5.54
Sask.....	...	...	...	1.70	6.84	8.62	8.88	7.79	5.94
Alta.....	...	...	...	1.36	5.19	6.70	7.05	6.92	6.71
B.C.....	0.98	1.14	2.03	3.33	5.45	5.97	6.69	7.11	8.32
Yukon.....	...	...	...	0.51	0.12	0.05	0.04	0.04	0.06
N.W.T.....	1.30	1.30	2.05	0.37	0.09	0.09	0.09	0.10	0.11
Canada....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

For footnotes, see end of table.

To
A DAWSON

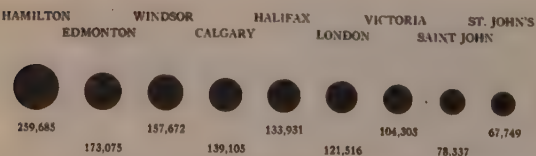
WHITEHORSE

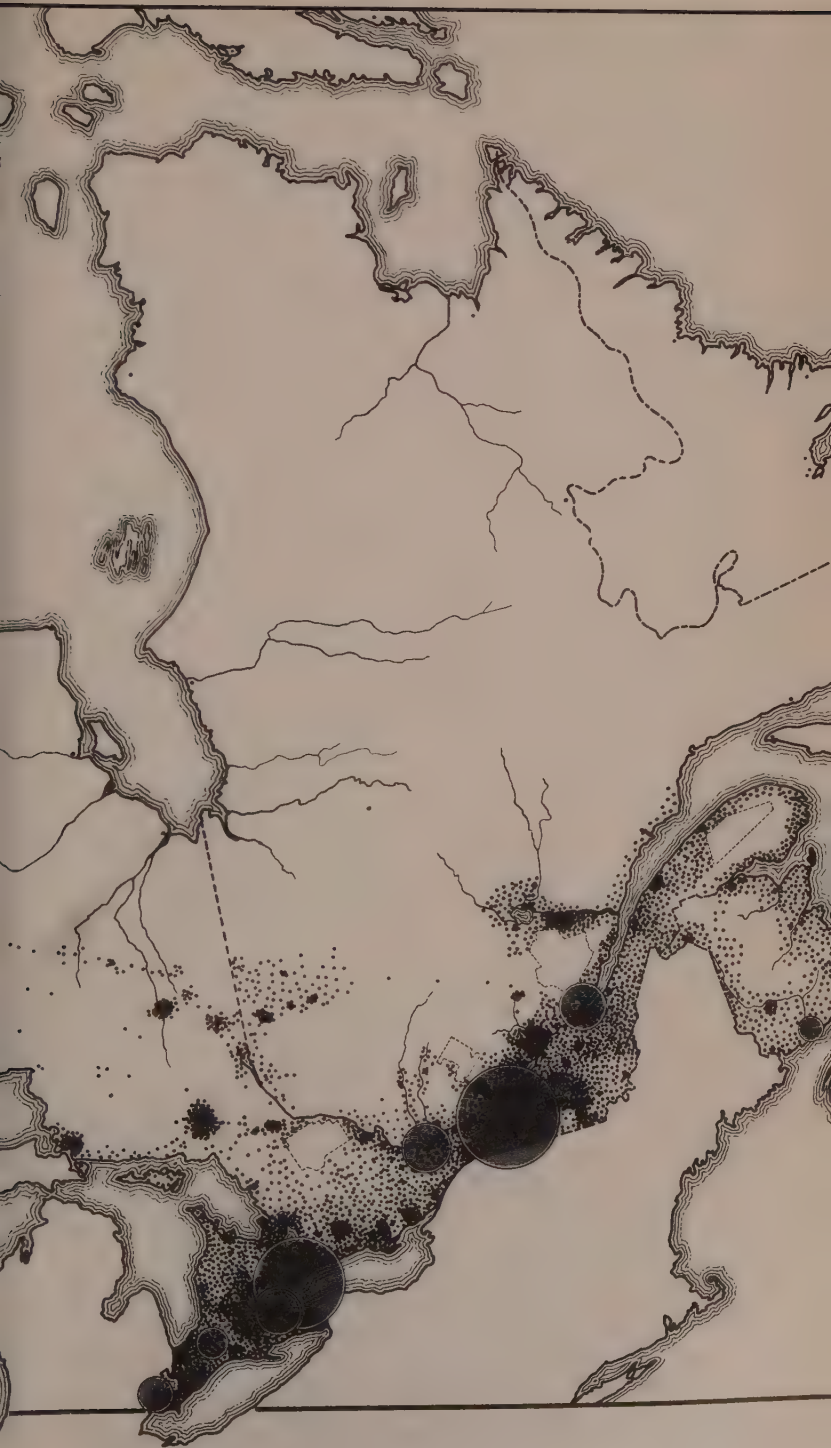




NOTA:

Un point représente 1,000 personnes, mais la population de chacune des quinze zones métropolitaines est indiquée par un disque de surface proportionnée aux points, et leur population s'ajoute à la répartition par points. Les zones métropolitaines sont répétées ci-dessous pour faciliter la comparaison.





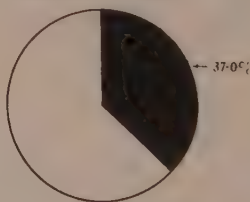
DISTRIBUTION OF POPULATION CANADA 1951

RÉPARTITION DE LA POPULATION CANADA 1951

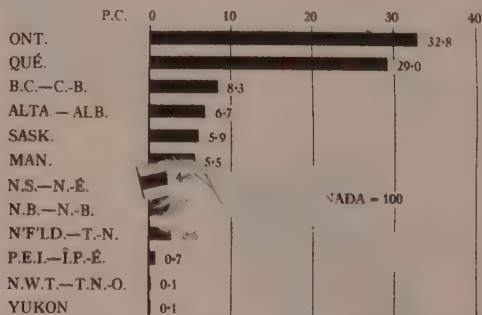


PERCENTAGE OF TOTAL POPULATION
FOR THE
FIFTEEN METROPOLITAN AREAS

POURCENTAGE DE LA POPULATION
TOTALE POUR LES QUINZE ZONES
MÉTROPOLITAINES



PERCENTAGE DISTRIBUTION OF TOTAL POPULATION
RÉPARTITION PROPORTIONNELLE DE LA POPULATION TOTALE



1.—Numerical and Percentage Distribution and Numerical and Percentage Increase of Population, by Provinces and Territories, Decennial Census Years 1871-1951—concluded.

Province or Territory	1871	1881	1891	1901	1911	1921	1931	1941	1951
NUMERICAL INCREASE OVER PRECEDING CENSUS									
Nfld.	...	14,870	187	-5,819	-9,531	-5,113	-577	7,009	361,416
P.E.I.	...	52,772	9,824	9,178	32,764	31,499	-10,991	65,116	3,382
N.B.	...	35,639	30	9,857	20,769	35,987	20,343	49,182	58,296
Que.	...	167,511	129,508	160,363	356,878	354,734	514,152	457,220	723,799
Ont.	...	306,071	187,399	68,626	344,345	406,870	498,021	355,972	809,887
Man.	...	37,032	90,246	102,705	206,183	148,724	90,021	29,605	46,797
Sask.	91,279	401,153	265,078	164,275	-25,793	-64,264
Alta.	73,022	301,273	214,159	143,151	64,564	143,332
B.C.	...	13,212	48,714	80,484	213,823	132,102	169,681	123,598	347,349
Yukon	27,219	-18,707	-4,355	73	684	4,182
N.W.T.	...	8,446	42,521	-78,838	-13,622	1,636	1,173	2,712	3,976
Canada	...	635,553	508,429	538,076	1,835,328	1,581,306²	1,588,837²	1,129,569	2,502,774
PERCENTAGE INCREASE OVER PRECEDING CENSUS									
Nfld.
P.E.I.	...	15.82	0.17	-5.33	-9.23	-5.46	-0.65	7.96	3.56
N.S.	...	13.61	2.23	2.04	7.13	6.40	-2.10	12.70	1.18
N.B.	...	12.48	0.01	3.07	6.27	10.23	5.24	12.05	12.75
Que.	...	14.06	9.53	10.77	21.64	17.69	21.78	15.91	21.72
Ont.	...	18.88	9.73	3.25	15.77	16.08	16.98	10.37	21.38
Man.	...	146.79	144.95	67.34	80.79	32.23	14.75	4.23	6.41
Sask.	439.48	53.83	21.69	-2.80	-7.17
Alta.	412.58	57.22	24.33	8.82	18.00
B.C.	...	36.45	98.49	81.98	119.68	33.66	32.35	17.80	42.47
Yukon	-68.73	-51.16	1.76	16.17	85.10
N.W.T.	...	17.60	75.33	-79.66	-67.67	25.14	14.41	29.11	33.06
Canada	...	17.23	11.76	11.13	34.17	21.94	18.08	10.89	21.75

¹Populations of Newfoundland (which was not part of Canada until 1949) were: 1871, 152,500 (estimated); 1881, 186,500 (estimated); 1891, 202,040; 1901, 222,984; 1911, 242,619; 1921, 263,033; 1931, 281,500 (estimated); 1941, 303,300 (estimated); and 1945, 321,819. ²Includes 485 members of the Royal Canadian Navy recorded separately in 1921.

The land area and density of the population per square mile is given by provinces in Table 2 for the census years 1921-51. It will be noted that the figures for 1951 include the Province of Newfoundland, and this fact should be kept in mind in comparisons with earlier censuses.

2.—Land Area and Density of Population, by Provinces and Territories, Census Years 1921-51

Province or Territory	Land Area in Sq. Miles	Population, 1921		Population, 1931		Population, 1941		Population, 1951	
		Total	Per Sq. Mile	Total	Per Sq. Mile	Total	Per Sq. Mile	Total	Per Sq. Mile
Newfoundland.....	147,994 ¹	...	...	...	...	...	...	361,416	2.44
Island.....	40,659	...	...	...	...	...	...	563,588	8.78
Labrador.....	107,435 ¹	...	...	...	...	...	...	7,890	0.07
Prince Edward Island...	2,184	88,615	40.57	88,038	40.31	95,047	43.52	98,429	45.07
Nova Scotia.....	20,743	523,837	25.25	512,846	24.72	577,962	27.86	642,584	30.98
New Brunswick.....	27,473	387,876	14.12	408,219	14.86	457,401	16.65	515,697	18.77
Quebec.....	523,860	2,360,510	4.51	2,874,662	5.49	3,331,882	6.36	4,055,681	7.74
Ontario.....	368,282	2,933,662	8.08	3,431,683	9.45	3,787,655	10.43	4,597,542	12.66
Manitoba.....	219,723	610,118	2.78	700,139	3.19	729,744	3.32	776,541	3.53
Saskatchewan.....	237,975	757,510	3.18	921,785	3.87	895,992	3.77	831,728	3.50
Alberta.....	248,800	588,454	2.37	731,605	2.94	796,169	3.20	939,501	3.78
British Columbia.....	359,279	524,582	1.46	694,263	1.93	817,861	2.28	1,165,210	3.24
Canada (Exclusive of the Territories)	2,151,313	8,775,164	4.38²	10,363,240	5.17²	11,489,713	5.74²	13,984,329	6.50³
Yukon Territory.....	205,346	4,157	0.02	4,230	0.02	4,914	0.02	9,096	0.04
Northwest Territories...	1,253,438	8,143	0.01	9,316	0.01	12,028	0.01	16,004	0.01
Canada	3,610,097	8,787,949⁴	2.54⁵	10,376,786	3.00⁵	11,506,655	3.32⁵	14,009,429	3.88⁵

¹Based on estimates.

²Calculated on the basis of 2,003,319 sq. miles which excludes the land area of Newfoundland.

³Includes Newfoundland.

⁴Total includes 485 members of the Royal Canadian Navy recorded separately in 1921.

⁵Calculated on the basis of 3,462,103 sq. miles which excludes the land area of Newfoundland.

The growth of Canadian cities with populations of over 30,000 in 1951, together with the dates of incorporation as cities, is shown in Table 3. All incorporated cities, towns and villages having populations of 1,000 or over in 1951 are listed in Table 6.

3.—Incorporated Cities with Populations of Over 30,000 at the 1951 Census and Comparable Data for 1941

NOTE.—Incorporated cities in which a Board of Trade exists are indicated by an asterisk (*), and those in which there is a Chamber of Commerce by a dagger (†).

City and Province	Year of Incorporation as City	Populations		City and Province	Year of Incorporation as City	Populations	
		1941	1951			1941	1951
		No.	No.			No.	No.
*Brantford, Ont.....	1877	31,948	36,727	*Regina, Sask.....	1903	58,245	71,319
*Calgary, Alta.....	1893	88,904	129,060	†St. Catharines, Ont.....	1876	30,275	37,984
†Edmonton, Alta.....	1904	93,817	159,631	*Saint John, N.B.....	1785	51,741	50,779
†Fort William, Ont.....	1907	30,585	34,947	*St. John's, Nfld.....	1888	44,603 ¹	52,873
*Halifax, N.S.....	1841	70,488	85,589	Sarnia, Ont.....	1914	18,734	34,697
†Hamilton, Ont.....	1846	166,337	208,321	*Saskatoon, Sask.....	1906	43,027	53,268
†Hull, Que.....	1875	32,947	43,483	†Sault Ste. Marie, Ont.....	1912	25,794	32,452
†Kingston, Ont.....	1846	30,126	33,459	†Sherbrooke, Que.....	1875	35,965	50,543
*Kitchener, Ont.....	1912	35,657	44,867	*Sudbury, Ont.....	1930	32,203	42,410
†London, Ont.....	1855	78,134	95,343	*Sydney, N.S.....	1904	28,305	31,317
*†Montreal, Que.....	1832	903,007	1,021,520	†Three Rivers, Que.....	1857	42,007	46,074
†Oshawa, Ont.....	1924	26,813	41,545	*Toronto, Ont.....	1834	667,457	675,754
*Ottawa, Ont.....	1854	154,951	202,045	*Vancouver, B.C.....	1886	275,353	344,833
†Outremont, Que.....	1915	30,751	30,057	†Verdun, Que.....	1912	67,349	77,391
†Peterborough, Ont.....	1905	25,350	38,272	†Victoria, B.C.....	1862	44,068	51,331
†Port Arthur, Ont.....	1907	24,426	31,161	*Windsor, Ont.....	1892	105,311	120,049
*Quebec, Que.....	1832	150,757	164,016	*Winnipeg, Man.....	1873	221,960	235,710

¹ Census taken by Newfoundland Government in 1945; 1941 figure not available.

Many of the larger cities of Canada have in their neighbourhoods growing 'satellite' towns or other urbanized areas in close economic and social relationship with the central city. For census purposes, metropolitan areas have been established for these centres to include the cities proper and their satellite communities. The total population of each of the census metropolitan areas in 1951, with the comparable figure from the 1941 Census covering the same area as in 1951, is shown in Table 4.

4.—Populations of Census Metropolitan Areas, 1951, compared with Populations of Same Areas in 1941

Metropolitan Area	Populations		Metropolitan Area	Populations	
	1941	1951		1941	1951
	No.	No.		No.	No.
Calgary, Alta.....	93,021	139,105	Saint John, N.B.....	70,927	78,337
Edmonton, Alta.....	97,842	173,075	St. John's, Nfld.....		67,749
Halifax, N.S.....	98,636	133,931	Toronto, Ont.....	909,928	1,117,470
Hamilton, Ont.....	197,732	259,685	Vancouver, B.C.....	377,447	530,728
London, Ont.....	91,024	121,516	Victoria, B.C.....	75,560	104,303
Montreal, Que.....	1,145,282	1,395,400	Windsor, Ont.....	123,973	157,672
Ottawa, Ont.....	226,290	281,908	Winnipeg, Man.....	299,937	354,069
Quebec, Que.....	224,756	274,827			

The distribution of the population of incorporated urban centres in Canada by size groups is given in Table 5 for the census years 1931, 1941 and 1951.

5.—Populations of Incorporated Cities, Towns and Villages, by Size, Census Years 1931, 1941 and 1951

Group	1931 ¹			1941 ¹			1951		
	Number of Places	Population	P.C. of Total Pop.	Number of Places	Population	P.C. of Total Pop.	Number of Places	Population	P.C. of Total Pop.
Over 500,000.....	2	1,449,784	13.97	2	1,570,464	13.65	2	1,697,274	12.11
Between—									
400,000 and 500,000	—	—	—	—	—	—	—	—	—
300,000 and 400,000	—	—	—	—	—	—	—	—	—
200,000 and 300,000	2	465,378	4.48	2	497,313	4.32	3	544,833	2.46
100,000 and 200,000	3	413,013	3.98	4	577,356	5.02	4	572,756	4.61
50,000 and 100,000	7	470,443	4.53	7	508,808	4.42	9	588,436	4.09
25,000 and 50,000	10	339,521	3.27	19	605,805	5.26	24	802,380	4.20
15,000 and 25,000	23	457,292	4.41	20	377,505	3.28	34	636,713	5.73
10,000 and 15,000	23	275,944	2.66	24	296,195	2.57	29	347,410	4.54
5,000 and 10,000	68	458,784	4.42	74	510,429	4.44	100	720,077	2.48
3,000 and 5,000	71	273,276	2.63	91	348,709	3.03	119	457,492	5.14
1,000 and 3,000	324	557,466	5.37	337	561,019	4.88	409	698,092	3.27
Under 1,000.....	1,072	411,157	3.96	1,060	398,813	3.47	1,049	429,683	4.98
Totals.....	1,605	5,572,058	53.70	1,640	6,252,416	54.34	1,783	7,941,222	56.68

¹ Newfoundland not included.

Of the 1,783 incorporated urban centres in Canada at the date of the latest Census, June 1, 1951, 734 had a population of over 1,000. These are listed alphabetically by provinces in Table 6, with their 1951 populations and comparative figures for 1941.

6.—Incorporated Cities, Towns and Villages having Populations of Over 1,000, by Provinces, Census 1951 compared with 1941

Province and Incorporated Centre	1945 ¹	1951	Province and Incorporated Centre	1941	1951
	No.	No.		No.	No.
Newfoundland—			Nova Scotia—		
Bay Roberts.....	..	1,222	Amherst.....	8,620	9,870
Carbonear.....	..	3,351	Antigonish.....	2,157	3,196
Channel-Port aux Basques.....	..	2,634	Berwick.....	962	1,045
Corner Brook East.....	..	3,445	Bridgetown.....	1,020	1,038
Corner Brook West.....	5,464	6,831	Bridgewater.....	3,445	4,010
Curling.....	..	3,559	Canso.....	1,418	1,313
Deer Lake.....	..	2,655	Clark's Harbour.....	887	1,020
Pogo.....	..	1,078	Dartmouth.....	10,847	15,037
Grand Bank.....	2,329	2,148	Digby.....	1,657	2,047
Harbour Grace.....	2,065	2,331	Dominion.....	3,279	3,143
Lewisporte.....	..	1,218	Glace Bay.....	25,147	25,586
St. Anthony.....	1,109	1,380	Halifax.....	70,488	85,589
St. John's.....	44,603	52,873	Hantsport.....	907	1,131
St. Lawrence.....	..	1,451	Inverness.....	2,975	2,360
Wabana.....	..	6,460	Kentville.....	3,928	4,240
Wesleyville.....	968	1,304	Liverpool.....	3,170	3,535
Windsor.....	2,772	3,674	Lockport.....	1,084	1,225
	1941	1951	Louisburg.....	1,012	1,120
			Lunenburg.....	2,856	2,816
Prince Edward Island—			Mahone Bay.....	1,025	1,019
Charlottetown.....	14,821	15,887	Middleton.....	1,172	1,506
Montague.....	769	1,068	Mulgrave.....	1,057	1,212
Souris.....	1,114	1,183	New Glasgow.....	9,210	9,933
Summerside.....	5,034	6,547	New Waterford.....	9,302	10,423
			North Sydney.....	6,836	7,354

¹ Census taken by the Newfoundland Government in 1945; 1941 figures not available.

**6.—Incorporated Cities, Towns and Villages having Populations of Over 1,000,
by Provinces, Census 1951 compared with 1941—continued**

Province and Incorporated Centre	1941	1951	Province and Incorporated Centre	1941	1951
No.	No.	No.	No.	No.	No.
Nova Scotia—concluded			Quebec—continued		
Oxford.....	1,297	1,466	Bourlamaque.....	1,545	2,460
Parrsboro.....	1,971	1,906	Bromptonville.....	1,672	2,025
Pictou.....	3,069	4,259	Brownsburg.....	3,105	3,238
Port Hawkesbury.....	1,031	1,034	Buckingham.....	4,516	6,129
Shelburne.....	1,605	2,040	Cabano.....	2,031	2,594
Springhill.....	7,170	7,138	Cadillac.....	989	1,514
Stellarton.....	5,351	5,575	Cap Chat.....	1,329	1,642
Stewiacke.....	961	1,018	Cap de la Madeleine.....	11,961	18,667
Sydney.....	28,305	31,317	Causapsca.....	1,545	2,609
Sydney Mines.....	8,198	8,410	Chambly Bassin.....	1,423	2,160
Trenton.....	2,699	3,089	Chambly Canton.....	1,185	1,636
Truro.....	10,272	10,756	Chambord.....	1,029	1,070
Westville.....	4,115	4,301	Chandler.....	1,858	2,326
Windsor.....	3,436	3,439	Charlemagne.....	1,150	1,856
Wolfville.....	1,944	2,313	Charlesbourg.....	2,789	5,734
Yarmouth.....	7,790	8,106	Charny.....	2,831	3,300
New Brunswick—			Châteauguay.....	1,425	2,240
Bathurst.....	3,554	4,453	Chicoutimi.....	16,040	23,216
Campbellton.....	6,748	7,754	Clermont.....	1,318	2,027
Chatham.....	4,082	5,223	Coaticook.....	4,414	6,341
Dalhousie.....	4,508	4,939	Contrecoeur.....	1,043	1,435
Dieppe.....	1	3,402	Cookshire.....	877	1,209
Edmundston.....	7,096	10,753	Côte-St-Luc.....	776	1,083
Fredericton.....	10,062	16,018	Courville.....	2,011	3,138
Grand Falls.....	1,806	2,365	Cowansville.....	3,486	4,431
Hartland.....	847	1,000	Danville.....	1,332	2,092
Marysville.....	1,651	2,152	DeLéry.....	816	1,194
Milltown.....	1,876	2,267	Deschailions-sur-St. Laurent	1,078	1,185
Moncton.....	22,763	27,334	Deschênes.....	284	1,169
Newcastle.....	3,781	4,248	Disraeli.....	1,338	2,145
St. Andrews.....	1,167	1,458	Dolbeau.....	2,847	4,307
St. George.....	1,169	1,263	Donnacona.....	3,064	3,663
St. Leonard.....	1,095	1,419	Dorion.....	1,292	2,413
St. Stephen.....	3,306	3,769	Dorval.....	2,048	5,293
Sackville.....	2,489	2,873	Drummondville.....	10,555	14,341
Saint John.....	51,741	50,779	Drummondville W.....	1	1,275
Shediac.....	2,147	2,010	Duparquet.....	1,384	1,485
Shippegan.....	1	1,181	East Angus.....	3,501	3,714
Sunny Brae.....	1,368	2,048	Farnham.....	4,055	4,926
Sussex.....	3,027	3,224	Ferme-Neuve.....	811	1,660
Woodstock.....	3,593	3,996	Fort Coulonge.....	1,072	1,431
Quebec—			Gaspé.....	924	1,692
Acton Vale.....	2,366	3,367	Gatineau.....	2,822	5,771
Amos.....	2,862	4,265	Giffard.....	4,909	8,097
Amqui ¹	1,593	2,599	Granby.....	14,197	21,989
Arthabaska.....	1,883	2,321	Grand'Mère.....	8,608	11,089
Arvida.....	4,581	11,078 ²	Greenfield Park.....	1,819	3,379
Asbestos.....	5,711	8,190	Grenville.....	737	1,069
Aylmer.....	3,115	4,375	Hampstead.....	1,974	3,260
Bagotville.....	3,248	4,136	Hébertville Station.....	950	1,038
Baie Comeau.....	1,548	3,972	Hudson.....	731	1,283
Baie de Shawinigan.....	1,255	1,223	Hull.....	32,947	43,483
Baie St. Paul.....	3,500	3,716	Huntingdon.....	1,952	2,806
Beaconsfield.....	706	1,888	Iberville.....	3,454	5,185
Beauceville.....	899	1,149	Jacques-Cartier.....	1	22,450
Beauceville E.....	1,251	1,573	Joliette.....	12,749	16,064
Beauharnois.....	3,550	5,694	Jonquières.....	13,769	21,618
Beauport.....	3,725	5,390	Kénogami.....	6,579	9,895
Beauport E.....	587	1,096	Knowlton.....	972	1,094
Bedford.....	1,697	2,073	Labelle.....	709	1,003
Beebe Plain.....	1,024	1,352	L'Abord-à-Plouffe.....	1,773	4,604
Bellefleur.....	1	1,011	Lac-au-Saumon.....	1,703	1,622
Beloeil.....	2,008	2,992	Lachute.....	20,051	27,773
Bernerville.....	1,638	1,959	Lacolle.....	5,310	6,179
Berthierville ³	2,631	3,325	Lac St. Louis.....	874	1,055
Bic.....	1,117	1,086	La Guadeloupe ⁴	819	1,300
Black Lake.....	2,276	2,800	La Malbaie.....	627	1,321
Boucherville.....	1,047	1,583	La Pêrade.....	2,324	2,466
			La Prairie.....	1,014	1,111
				2,936	4,058

¹ Not incorporated in 1941.
of Arvida.

² St. Benoit-Joseph-Labre in 1941.

³ Berthier in 1941.

⁴ St. Evariste Station in 1941.

⁵ Racine annexed to town

**6.—Incorporated Cities, Towns and Villages having Populations of Over 1,000,
by Provinces, Census 1951 compared with 1941—continued**

Province and Incorporated Centre	1941	1951	Province and Incorporated Centre	1941	1951
	No.	No.		No.	No.
Quebec—continued			Quebec—continued		
La Providence.....	1,924	2,693	Rivière-du-Moulin.....	1,561	2,580
Lasalle.....	4,651	11,633	Roberval.....	3,220	4,897
La Sarre.....	2,167	2,744	Rock Island.....	1,395	1,646
L'Assomption.....	1,829	2,688	Rouyn.....	8,808	14,633
La Tuque.....	7,919	9,538	Ste. Agathe-des-Monts.....	3,308	5,169
Laurentides.....	1,342	1,465	St. Alexis - de - la - Grande - Baie.....	2,230	2,974
Lauzon.....	7,877	9,643	St. Ambroise.....	458	1,032
Laval-des-Rapides.....	3,242	4,998	Ste. Anne-de-Beaupré.....	1,783	1,827
Laval W.....	542	1,935	Ste. Anne-de-Bellevue.....	3,006	3,342
Le Moine.....	1	4,078	Ste. Anne-de-Chicoutimi.....	1,540	3,966
Lennoxville.....	2,150	2,895	St. Basile South.....	1	1,347
L'Epiphanie.....	1,941	2,462	St. Casimir.....	1,307	1,334
Lévis.....	11,991	13,162	St. Césaire.....	1,209	1,658
Longueuil.....	7,087	11,103	St. Cœur-de-Marie.....	661	1,061
Loretteville.....	2,564	4,382	Ste. Croix.....	841	1,080
Louiseville.....	3,542	4,088	St. Cyrille.....	723	1,189
Lucerne.....	701	1,059	St. Emilien.....	1,018	1,651
Macamic.....	645	1,123	St. Eustache.....	1,564	2,615
Mackayville.....	1	6,494	St. Eustache-sur-le-Lac.....	1,472	3,211
Magog.....	9,034	12,423	St. Félicien.....	1,603	2,656
Malartic.....	2,895	5,983	St. Felix-de-Valois.....	1,130	1,201
Maniwaki.....	2,320	3,835	Ste. Foy.....	2	5,236
Marieville.....	2,394	3,117	St. Gabriel-de-Brandon.....	1,632	2,661
Masson.....	1,226	1,475	Ste. Geneviève-de-Pierre- fonds.....	489	1,322
Matane.....	4,633	6,345	St. Georges (Champlain Co.).....	753	1,143
McMasterville.....	1,087	1,509	St. Georges (Beauce Co.).....	1,945	2,657
Mégantic.....	4,560	6,161	St. Georges W. (Beauce Co.) ²	1,945	2,691
Mistassini.....	1,294	2,298	St. Hilaire.....	686	1,436
Montbello.....	1,266	1,397	St. Hyacinthe.....	17,798	20,236
Mont Joli.....	3,533	4,938	St. Jacques.....	1,634	1,729
Mont Laurier.....	2,661	4,701	St. Jean.....	13,646	19,305
Montmagny.....	4,585	5,844	St. Jean-de-Boischatel.....	882	1,297
Montmorency.....	5,393	5,817	St. Jérôme (Lac St. Jean Co.).....	1,469	1,480
Montreal.....	903,007	1,021,520	St. Jérôme (Terrebonne Co.).....	11,329	17,685
Montreal E.....	2,355	4,513	St. Joseph (Beauce Co.).....	1,892	2,417
Montreal N.....	6,152	14,081	St. Joseph (St. Hyacinthe Co.).....	1,021	2,122
Montreal S.....	1,441	4,214	St. Joseph-d'Alma.....	6,449	7,975
Montreal W.....	3,474	3,721	St. Joseph (Drummond Co.).....	5,556	6,576
Mont Royal.....	4,888	11,352	St. Joseph-de-la-Rivière- Beule.....	1,082	1,334
Napierville.....	990	1,356	St. Joseph-de-Sorel ²	2,207	3,349
Naudville.....	1	1,430	St. Jovite.....	1,059	1,453
Nicolet.....	3,751	4,084	St. Lambert.....	6,417	8,615
Noranda.....	4,576	9,672	St. Laurent.....	6,242	20,426
Normandin.....	1,029	1,678	St. Marc-des-Carrières.....	2,118	2,351
Notre-Dame-d'Hébertville.....	1,025	1,285	Ste. Marie.....	1,736	2,431
Notre-Dame-de-Lorette.....	1	2,516	St. Michel (Montreal Island).....	2,956	10,559
Notre-Dame-de-Portneuf.....	1,015	1,144	St. Pacôme.....	1,254	1,197
Notre-Dame-du-Lac.....	1	1,364	St. Pascal.....	1,265	1,736
Ormstown.....	887	1,233	St. Pie.....	1,009	1,182
Outremont.....	30,751	30,057	St. Pierre (Montreal Island).....	4,061	4,976
Papineauville.....	1,023	1,024	St. Raymond.....	2,157	3,139
Parent.....	1	1,255	St. Remi.....	1,431	1,845
Pierreville.....	1,302	1,448	Ste. Rosalie.....	1	1,038
Plessisville.....	3,522	5,094	Ste. Rose.....	2,292	3,660
Pointe-à-Gatineau.....	2,230	3,874	St. Sauveur-des-Monts.....	595	1,066
Pointe-au-Pic.....	1,083	1,105	St. Siméon.....	858	1,103
Pointe-aux-Trembles.....	4,314	8,241	Ste. Thècle.....	904	1,468
Pointe Claire.....	4,536	8,753	Ste. Thérèse.....	4,659	7,038
Pont Rouge.....	1,865	2,413	St. Tite.....	2,385	2,856
Pont Viau.....	1,342	5,129	Sayabec.....	2,115	2,220
Port Alfred.....	3,243	3,937	Scotstown.....	1,273	1,350
Price.....	2,321	2,810	Senneterre.....	1	1,686
Princeville.....	1,145	1,967	Sept-Iles.....	1	1,866
Quebec.....	150,757	164,016	Shawinigan Falls.....	20,325	26,903
Quebec W.....	3,619	7,295	Shawinigan South.....	1	6,637
Rawdon.....	1,236	1,912	Shawville.....	892	1,159
Richelieu.....	773	1,129	Sherbrooke.....	35,965	50,543
Richmond.....	3,082	3,471			
Rigaud.....	1,222	1,579			
Rimouski.....	7,009	11,565			
Rivière-du-Loup.....	8,713	9,425			

¹ Not incorporated in 1941.
in 1941.

² Ste. Foy Rural Municipality in 1941.

³ St. Georges E.

⁴ St. Joseph in 1941.

**6.—Incorporated Cities, Towns and Villages having Populations of Over 1,000,
by Provinces, Census 1951 compared with 1941—continued**

Province and Incorporated Centre	1941	1951	Province and Incorporated Centre	1941	1951
No.	No.	No.	No.	No.	No.
Quebec—concluded			Ontario—continued		
Sillery.....	1	10,376	Cochrane.....	2,844	3,401
Sorel.....	12,251	14,961	Colborne.....	994	1,108
Sutton.....	1,118	1,389	Collingwood.....	6,270	7,413
Tadoussac.....	766	1,064	Coniston.....	2,245	2,292
Témiscaming.....	2,168	2,787	Copper Cliff.....	3,732	3,974
Templeton.....	949	1,717	Cornwall.....	14,117	16,899
Terrebonne.....	2,209	3,200	Crystal Beach.....	618	1,204
Thetford Mines.....	12,716	15,095	Delhi.....	2,062	2,517
Three Rivers.....	42,007	46,074	Deseronto.....	1,261	1,522
Thurso.....	1,295	1,973	Dresden.....	1,662	2,052
Trois Pistoles.....	2,176	3,537	Dryden.....	1,641	2,627
Val-d'Or.....	4,385	8,685	Dundas.....	5,276	6,846
Vallée Jonction ²	1,175	1,279	Dunnville.....	4,028	4,478
Valleyfield (Salaberry-de-). Varennes.....	17,052	22,414	Durham.....	1,700	1,839
Vernon.....	781	1,104	Eastview.....	7,966	13,799
Vernon.....	906	1,201	Eganville.....	1,088	1,326
Verdun.....	67,349	77,391	Elmira.....	2,012	2,589
Victoriaville.....	8,516	13,124	Elora.....	1,247	1,348
Ville-Marie.....	1,001	1,316	Englehart.....	1,262	1,585
Warwick.....	1,504	2,094	Essex.....	1,935	2,741
Waterloo.....	3,173	4,054	Exeter.....	1,589	2,547
Waterville.....	844	1,205	Fenelon Falls.....	1,158	1,304
Weedon Centre.....	599	1,066	Fergus.....	2,832	3,387
Westmount.....	26,047	25,222	Fonthill.....	1,000	1,412
Windsor.....	3,368	4,714	Forest.....	1,570	1,790
Ontario—			Forest Hill.....	11,757	15,305
Acton.....	2,063	2,880	Fort Erie.....	6,595	7,572
Alexandria.....	2,175	2,204	Fort Frances.....	5,897	8,038
Alliston.....	1,733	1,987	Fort William.....	30,585	34,947
Almonte.....	2,543	2,672	Frankford.....	1,144	1,393
Amherstburg.....	2,853	3,638	Galt.....	15,346	19,207
Arnprior.....	3,895	4,381	Gananoque.....	4,044	4,572
Arthur.....	937	1,088	Georgetown.....	2,562	3,452
Aurora.....	2,726	3,358	Geraldton.....	2,979	3,227
Aylmer.....	2,478	3,483	Goderich.....	4,557	4,934
Bancroft.....	1,094	1,334	Gravenhurst.....	2,122	3,005
Barrie.....	9,725	12,514	Grimsby.....	2,331	2,773
Barry's Bay.....	1,198	1,218	Guelph.....	23,273	27,386
Beamsville.....	1,309	1,712	Hagersville.....	1,455	1,746
Beaverton.....	934	1,048	Haileybury.....	2,268	2,346
Belle River.....	999	1,431	Hamilton.....	166,337	208,321
Belleville.....	15,710	19,519	Hanover.....	3,290	3,533
Blenheim.....	1,952	2,459	Harriston.....	1,305	1,494
Blind River.....	2,619	2,512	Harrow.....	1,166	1,519
Bobcaygeon.....	1,002	1,207	Havelock.....	1,113	1,132
Bowmanville.....	4,113	5,430	Hawkesbury.....	6,263	7,194
Bracebridge.....	2,341	2,684	Hearst.....	995	1,723
Bradford.....	1,033	1,483	Hespeler.....	3,058	3,802
Brampton.....	6,020	8,389	Humberstone.....	2,963	3,895
Brantford.....	31,948	36,727	Huntsville.....	2,800	3,286
Bridgeport.....	³ 1,137	1,137	Ingersoll.....	5,782	6,524
Brighton.....	1,651	1,967	Iroquois.....	956	1,086
Brockville.....	11,342	12,301	Iroquois Falls.....	1,302	1,342
Burlington.....	3,815	6,017	Kapuskasing.....	3,431	4,687
Burlington Beach ⁴.....	..	2,827	Keewatin.....	1,481	1,634
Caledonia.....	1,401	1,681	Kemptville.....	1,232	1,488
Campbellford.....	3,018	3,235	Kenora.....	7,745	8,695
Capreol.....	1,641	2,002	Kincardine.....	2,507	2,672
Cardinal.....	1,645	1,782	Kingston.....	30,126	33,459
Carleton Place.....	4,305	4,725	Kingsville.....	2,317	2,631
Casselman.....	1,021	1,158	Kitchener.....	35,657	44,867
Chatham.....	17,369	21,218	Lakefield.....	1,349	1,710
Chelmsford.....	905	1,210	La Salle.....	951	1,854
Chesley.....	1,701	1,672	Leamington.....	5,858	6,950
Chesterville.....	1,067	1,094	Leaside.....	6,183	16,233
Chippewa.....	1,385	1,762	Levaok.....	895	1,833
Clinton.....	1,896	2,547	Lindsay.....	8,403	9,603
Cobalt.....	2,376	2,230	Listowel.....	3,013	3,469
Cobourg.....	5,973	7,470	Little Current.....	1,088	1,397
			London.....	78,134	95,343

¹ Sillery Rural Municipality in 1941.
941.

⁴ Park Commission.

² L'Enfant Jesus in 1941.

³ Not incorporated in

**6.—Incorporated Cities, Towns and Villages Having Populations of Over 1,000,
by Provinces, Census 1951 compared with 1941—continued**

Province and Incorporated Centre	1941	1951	Province and Incorporated Centre	1941	1951
No.	No.	No.	No.	No.	No.
Ontario—continued			Ontario—concluded		
Long Branch.....	5,172	8,727	Stirling.....	990	1,100
Madoc.....	1,188	1,240	Stoney Creek.....	1,007	1,922
Markdale.....	870	1,007	Stouffville.....	1,253	1,695
Markham.....	1,204	1,606	Stratford.....	17,038	18,785
Marmora.....	1,106	1,117	Strathroy.....	3,016	3,708
Mattawa.....	1,971	3,097	Streetsville.....	709	1,139
Meaford.....	2,662	3,178	Sturgeon Falls.....	4,576	4,962
Merritton.....	2,993	4,714	Sudbury.....	32,203	42,410
Midland.....	6,800	7,206	Sutton.....	1,051	1,168
Milton.....	1,964	2,451	Swansea.....	6,988	8,072
Milverton.....	1,015	1,055	Tavistock.....	1,066	1,094
Mimico.....	8,070	11,342	Tecumseh.....	2,412	3,543
Mitchell.....	1,777	1,979	Thessalon.....	1,316	1,595
Morrisburg.....	1,575	1,858	Thorold.....	5,305	6,397
Mount Forest.....	1,892	2,291	Tilbury.....	2,155	2,682
Napanee.....	3,405	3,897	Tillsonburg.....	4,002	5,330
New Hamburg.....	1,402	1,738	Timmins.....	28,790	27,743
New Liskeard.....	3,019	4,215	Toronto.....	667,457	675,754
Newmarket.....	4,026	5,356	Trenton.....	8,323	10,085
New Toronto.....	9,504	11,194	Tweed.....	1,343	1,562
Niagara.....	1,541	2,108	Uxbridge.....	1,406	1,785
Niagara Falls.....	20,589	22,874	Vankleek Hill.....	1,435	1,480
North Bay.....	15,599	17,944	Walkerton.....	2,679	3,264
Norwich.....	1,268	1,439	Wallaceburg.....	4,986	7,688
Oakville.....	4,115	6,910	Waterdown.....	910	1,347
Orangeville.....	2,718	3,249	Waterford.....	1,342	1,745
Orillia.....	9,798	12,110	Waterloo.....	9,025	11,991
Oshawa.....	26,813	41,545	Watford.....	1,076	1,201
Ottawa.....	154,951	202,045	Welland.....	12,500	15,382
Owen Sound.....	14,002	16,423	West Lorne.....	728	1,031
Palmerston.....	1,418	1,573	Weston.....	5,740	8,677
Paris.....	4,637	5,249	Wheatley.....	785	1,021
Parry Sound.....	5,765	5,183	Whitby.....	5,904	7,267
Pembroke.....	11,159	12,704	Wiaraton.....	1,749	1,955
Penetanguishene.....	4,521	4,949	Winchester.....	1,049	1,201
Perth.....	4,458	5,034	Windsor.....	105,311	120,049
Peterborough.....	25,350	38,272	Wingham.....	2,030	2,642
Petrolia.....	2,801	3,105	Woodbridge.....	1,044	1,699
Pictou.....	3,901	4,287	Woodstock.....	12,461	15,544
Point Edward.....	1,363	1,838			
Port Arthur.....	24,426	31,161	Manitoba—		
Port Colborne.....	6,993	8,275	Altona.....	1	1,438
Port Credit.....	2,160	3,643	Beauséjour.....	1,161	1,376
Port Dalhousie.....	1,723	2,616	Boissevain.....	817	1,015
Port Dover.....	1,968	2,440	Brandon.....	17,383	20,598
Port Elgin.....	1,395	1,553	Brooklands.....	2,240	2,915
Port Hope.....	5,055	6,548	Carman.....	1,455	1,867
Port Perry.....	1,245	1,721	Dauphin.....	4,662	6,007
Portsmouth.....	3,135	3,411	Flin Flon.....	1	9,899
Port Stanley.....	1,177	1,491	Gimli.....	853	1,324
Prescott.....	3,223	3,518	Killarney.....	1,051	1,262
Preston.....	6,704	7,619	Minnedosa.....	1,636	2,085
Rainy River.....	1,205	1,348	Morden.....	1,427	1,862
Renfrew.....	5,511	7,360	Morris.....	953	1,193
Richmond Hill.....	1,345	2,164	Neepawa.....	2,292	2,895
Ridgetown.....	1,944	2,365	Portage la Prairie.....	7,187	8,511
Riverside.....	4,878	9,214	Powerview.....	1	1,075
Rockcliffe Park.....	1,480	1,595	Rivers.....	802	1,209
Rockland.....	2,040	2,348	Roblin.....	765	1,055
St. Catharines.....	30,275	37,984	Russell.....	783	1,100
St. Mary's.....	3,635	3,995	St. Boniface.....	18,157	26,342
St. Thomas.....	17,132	18,173	Selkirk.....	4,915	6,218
Sarnia.....	18,734	34,697	Souris.....	1,346	1,584
Sault Ste. Marie.....	25,794	32,452	Steinbach.....	1	2,155
Seaforth.....	1,668	2,118	Stonewall.....	1,020	1,040
Shelburne.....	1,005	1,184	Swan River.....	1,129	2,290
Simcoe.....	6,037	7,269	The Pas.....	3,181	3,376
Sioux Lookout.....	1,756	2,364	Transcona.....	5,495	6,752
Smith's Falls.....	7,159	8,441	Tuxedo.....	735	1,627
Smooth Rock Falls.....	953	1,102	Virton.....	1,619	1,746
Southampton.....	1,600	1,700	Winkler.....	957	1,331
Stayner.....	1,085	1,280	Winnipeg.....	221,960	235,710

¹ Not incorporated in 1941.

**6.—Incorporated Cities, Towns and Villages having Populations of Over 1,000,
by Provinces, Census 1951 compared with 1941—concluded**

Province and Incorporated Centre	1941	1951	Province and Incorporated Centre	1941	1951
No.	No.	No.	No.	No.	No.
Saskatchewan—			Alberta—concluded		
Assiniboia.....	1,349	1,938	McLennan.....	^a	1,074
Battleford.....	1,317	1,319	Medicine Hat.....	10,571	16,364
Biggar.....	1,930	2,214	Olds.....	1,337	1,617
Canora.....	1,200	1,568	Peace River.....	873	1,672
Estevan.....	2,774	3,935	Pincher Creek.....	994	1,456
Eston.....	726	1,301	Ponoka.....	1,306	2,574
Gravelbourg.....	1,130	1,197	Raymond.....	2,089	2,279
Grenfell.....	857	1,007	Redcliff.....	1,111	1,538
Hudson Bay.....	547	1,115	Red Deer.....	2,924	7,575
Humboldt.....	1,767	2,435	Redwater.....	^a	1,306
Indian Head.....	1,349	1,569	Rocky Mountain House.....	800	1,147
Kamsack.....	1,792	2,327	St. Albert.....	697	1,129
Kindersley.....	990	1,755	St. Paul.....	1,018	1,407
Lloydminster ¹	1,624	3,938	Stettler.....	1,295	2,442
Maple Creek.....	1,085	1,638	Taber.....	1,831	3,042
Meadow Lake.....	971	1,956	Three Hills.....	706	1,026
Melfort.....	2,005	2,919	Vegreville.....	1,696	2,223
Melville.....	4,011	4,458	Vermilion.....	1,408	1,982
Moose Jaw.....	20,753	24,355	Vulcan.....	732	1,040
Moosomin.....	1,096	1,235	Wainwright.....	980	1,996
Nipawin.....	1,344	3,050	Westlock.....	590	1,111
North Battleford.....	4,745	7,473	Wetaskiwin.....	2,318	3,824
Prince Albert.....	12,508	17,149			
Regina.....	58,245	71,319	British Columbia—		
Rosetown.....	1,470	1,865	Alberni.....	1,807	3,323
Rosthern.....	1,149	1,183	Armstrong.....	^a 977	1,126
Saskatoon.....	43,027	53,268	Campbell River.....	^a	1,986
Shaunavon.....	1,603	1,625	Castlegar.....	^a	1,329
Sutherland.....	888	1,329	Chilliwack.....	3,675	5,663
Swift Current.....	5,594	7,458	Courtenay.....	1,737	2,553
Tisdale.....	1,237	2,141	Cranberry Lake.....	^a	1,350
Unity.....	682	1,248	Cranbrook.....	2,568	3,621
Wadena.....	679	1,081	Creston.....	1,153	1,626
Watrous.....	1,138	1,228	Dawson Creek.....	518	3,589
Weyburn.....	6,179	7,148	Duncan.....	2,189	2,784
Wilkie.....	1,232	1,580	Fernie.....	2,545	2,551
Wynyard.....	1,080	1,326	Grand Forks.....	1,259	1,646
Yorkton.....	5,577	7,074	Hope.....	515	1,668
			Kamloops.....	5,959	8,099
Alberta—			Kelowna.....	5,118	8,517
Athabaska.....	578	1,068	Kimberley.....	^a	5,933
Barrhead.....	399	1,243	Ladysmith.....	1,706	2,094
Beverly.....	981	2,159	Lake Cowichan.....	^a	1,628
Black Diamond.....	890	1,154	Merritt.....	940	1,251
Blairmore.....	1,731	1,933	Mission City.....	1,957	2,668
Bonnyville.....	603	1,139	Nanaimo.....	6,635	7,196
Bowness.....	^a	2,922	Nelson.....	5,912	6,772
Brooks.....	888	1,648	New Westminster.....	21,967	28,639
Calgary.....	88,904	129,060	North Kamloops.....	^a	1,979
Camrose.....	2,598	4,131	North Vancouver.....	8,914	15,687
Cardston.....	1,864	2,487	Oliver.....	^a	1,000
Claresholm.....	1,265	1,608	Penticton.....	^a	10,548
Coleman.....	1,870	1,961	Port Alberni.....	4,584	7,845
Didsbury.....	892	1,180	Port Coquitlam.....	1,539	3,232
Drumheller.....	2,748	2,601	Port Moody.....	1,512	2,246
Edmonton.....	93,817	159,631	Prince George.....	2,027	4,703
Edson.....	1,499	1,956	Prince Rupert.....	6,714	8,546
Forest Lawn.....	899	1,079	Quesnel.....	^a	1,587
Fort Saskatchewan.....	903	1,076	Revelstoke.....	2,106	2,917
Grande Prairie.....	1,724	2,664	Rossland.....	3,657	4,604
Hanna.....	1,622	2,027	Salmon Arm.....	836	1,201
High Prairie.....	^a	1,141	Smithers.....	759	1,204
High River.....	1,430	1,888	Trail.....	9,392	11,430
Innisfail.....	1,223	1,417	Vancouver.....	275,353	344,833
Jasper Place.....	^a	9,139	Vernon.....	5,209	7,822
Lacombe.....	1,603	2,277	Victoria.....	44,068	51,331
Leduc.....	871	1,842	Westview.....	^a	3,507
Lethbridge.....	14,612	22,947			
Macleod.....	1,912	1,860	Yukon Territory		
Magrath.....	1,207	1,320	Whitehorse.....	754	2,594

¹ Located partly in Alberta.² Not incorporated in 1941.

Table 7 shows the populations of counties and census divisions for the census years 1901 to 1951. In Prince Edward Island, New Brunswick and Ontario census counties correspond closely with the municipal counties of these Provinces. In Quebec, census counties have been subdivided to correspond as far as possible with the additional municipal counties created in this Province. For example, Charlevoix County is divided into Charlevoix East and Charlevoix West and separate figures are shown for each. The Provinces of Newfoundland, Manitoba, Saskatchewan, Alberta and British Columbia have been divided for statistical purposes into census divisions since they have no fixed political divisions corresponding to the counties in other provinces.

7.—Populations of the Provinces and Territories, by Counties or Census Divisions, Census Years 1901-51

Province and County or Division	1901	1911	1921	1931	1941	1951
	No.	No.	No.	No.	No.	No.
Canada	5,371,315	7,206,643	8,787,949¹	10,376,786	11,506,655²	14,009,429
Newfoundland.....	..	..	..	..	321,819³	361,416
Division No. 1.....	..	..	..	..	138,194	149,543
Division No. 2.....	..	..	..	..	21,958	22,366
Division No. 3.....	..	..	..	..	19,177	20,434
Division No. 4.....	..	..	..	..	13,074	15,982
Division No. 5.....	..	..	..	..	20,720	28,089
Division No. 6.....	..	..	..	..	19,894	27,968
Division No. 7.....	..	..	..	..	35,419	35,294
Division No. 8.....	..	..	..	..	33,019	36,799
Division No. 9.....	..	..	..	..	14,839	17,051
Division No. 10.....	..	..	..	..	5,525	7,890
P. E. Island	103,259	93,728	88,615	88,038	95,047	98,429
Kings.....	24,725	22,636	20,445	19,147	19,415	17,943
Prince.....	35,400	32,779	31,520	31,500	34,490	37,735
Queens.....	43,134	38,313	36,650	37,391	41,142	42,751
Nova Scotia	459,574	492,338	533,837	512,846	577,962	642,584
Annapolis.....	18,842	18,581	18,153	16,297	17,692	21,747
Antigonish.....	13,617	11,962	11,580	10,073	10,545	11,971
Cape Breton.....	49,166	73,330	86,319	92,502	110,703	120,306
Colchester.....	24,900	23,664	25,196	25,051	30,124	31,636
Cumberland.....	36,168	40,543	41,191	36,366	39,476	39,655
Digby.....	20,322	20,167	19,612	18,353	19,472	19,989
Guysborough.....	18,320	17,048	15,518	15,443	15,461	14,245
Halifax.....	74,662	80,257	97,228	100,204	122,656	162,217
Hants.....	20,056	19,703	19,739	19,393	22,034	23,357
Inverness.....	24,353	25,571	23,808	21,055	20,573	18,390
Kings.....	21,937	21,780	23,723	24,357	28,920	33,183
Lunenburg.....	32,339	33,260	33,742	31,674	32,942	33,256
Pictou.....	33,459	35,858	40,851	39,018	40,789	44,002
Queens.....	10,226	10,106	9,944	10,612	12,028	12,544
Richmond.....	13,515	13,273	12,464	11,098	10,853	10,783
Shelburne.....	14,202	14,105	13,491	12,485	13,251	14,392
Victoria.....	10,571	9,910	8,904	7,926	8,028	8,217
Yarmouth.....	22,869	23,220	22,374	20,939	22,415	22,794
New Brunswick	331,120	351,889	387,876	405,219	457,401	515,697
Albert.....	10,925	9,691	8,607	7,679	8,421	9,910
Carleton.....	21,621	21,446	21,100	20,796	21,711	22,269
Charlotte.....	22,415	21,147	21,435	21,337	22,728	25,136
Gloucester.....	27,936	32,662	38,684	41,914	49,913	57,489
Kent.....	23,958	24,376	23,916	23,478	25,817	26,767
Kings.....	21,655	20,594	20,399	19,807	21,573	22,467
Madawaska.....	12,311	16,678	20,138	24,527	28,176	34,329
Northumberland.....	28,543	31,194	33,985	34,124	38,485	42,994
Queens.....	11,177	10,897	11,679	11,219	12,775	13,206
Restigouche.....	10,586	15,687	22,839	29,859	33,075	36,212
St. John.....	51,789	53,572	60,486	61,613	68,827	74,497

¹ Includes 485 members of the Royal Canadian Navy who were recorded separately in 1921.

² Total does not include Newfoundland.

³ Figures for Newfoundland and the census divisions are from the 1945 Census taken by the Newfoundland Government.

**7.—Populations of the Provinces and Territories, by Counties or Census Divisions,
Census Years 1901-51—continued**

Province and County	1901	1911	1921	1931	1941	1951
	No.	No.	No.	No.	No.	No.
New Brunswick—concl.						
Sunbury.....	5,729	6,219	6,162	6,999	8,296	9,322
Victoria.....	8,825	11,544	12,800	14,907	16,671	18,541
Westmorland.....	42,060	44,621	53,387	57,506	64,486	80,012
York.....	31,620	31,561	32,259	32,454	36,447	42,546
Quebec	1,648,898	2,005,776	2,360,510	2,874,662	3,331,882	4,055,681
Abitibi ¹	2,405	2,063	14,807	23,692	67,689	86,356
Argenteuil.....	16,407	16,766	17,165	18,976	22,670	25,872
Arthabaska.....	22,958	24,441	24,848	27,159	30,039	36,957
Bagot.....	18,181	18,206	18,035	16,914	17,642	19,224
Beauce.....	33,198	38,161	40,308	44,793	48,073	54,973
Beauharnois.....	21,732	20,802	19,888	25,163	30,269	38,748
Bellechasse.....	18,706	21,141	21,813	22,006	23,676	25,332
Berthier.....	20,710	20,606	20,509	19,506	21,233	24,717
Bonaventure.....	24,495	28,110	29,092	32,432	39,196	41,121
Brome.....	13,303	13,216	13,381	12,433	12,485	13,393
Chambly.....	12,779	16,711	21,924	26,801	32,454	77,931
Champlain.....	32,015	43,866	54,034	59,862	68,057	85,745
Charlevoix.....	19,334	20,637	20,708	22,940	25,662	28,259
Charlevoix East.....	8,878	10,055	10,855	11,751	13,077	14,611
Charlevoix West.....	10,456	10,582	10,473	11,189	12,685	13,748
Châteauguay.....	13,583	13,322	13,557	13,125	14,443	17,857
Chicoutimi.....	16,872	23,375	37,578	55,724	78,881	115,904
Compton.....	19,343	21,235	23,271	21,917	22,957	23,856
Deux-Montagnes.....	14,438	13,868	14,309	14,284	16,746	21,048
Dorchester.....	20,697	24,457	26,788	27,994	29,869	33,313
Drummond.....	16,041	17,149	19,975	26,179	36,683	53,426
Frontenac.....	17,358	22,272	24,090	25,681	28,596	30,733
Gaspe.....	30,683	35,001	40,375	45,617	55,208	62,530
Gaspe East.....	19,767	22,642	25,891	28,433	33,871	37,442
Gaspe West.....	4,890	5,696	7,567	9,242	12,397	16,089
Madeleine Islands.....	6,086	6,663	7,127	7,942	8,940	9,999
Hochelaga (included in Montreal Island).						
Hull.....	42,830	48,332	54,682	63,870	71,188	92,582
Gatineau.....	..	..	..	26,985	29,754	35,264
Hull.....	..	..	..	36,945	41,434	67,318
Huntingdon.....	13,979	13,240	13,174	12,345	12,394	13,457
Iberville.....	9,673	9,493	9,299	9,402	10,273	13,507
Jacques Cartier (included in Montreal Island).						
Joliette.....	22,255	23,911	25,913	27,585	31,713	37,251
Kamouraska.....	19,099	20,888	22,014	23,954	25,535	26,672
Labelle.....	7,175	13,691	19,734	20,140	22,974	27,197
Lac St. Jean.....	20,156	27,111	35,539	50,253	64,306	82,006
Lac St. Jean East.....	9,305	11,463	13,558	20,217	25,245	31,128
Lac St. Jean West.....	10,851	15,648	22,181	30,036	39,061	60,878
Laprairie.....	11,057	11,623	12,071	13,491	13,730	18,639
L'Assomption.....	13,995	15,164	14,331	15,323	17,543	23,205
Laval (included in Jesus Island).						
Lévis.....	26,210	28,913	33,323	35,656	38,119	43,625
L'Islet.....	14,439	16,435	17,559	19,404	20,589	22,996
Lotbinière.....	20,039	22,168	21,837	23,034	26,664	27,985
Maskinongé.....	15,083	15,775	16,253	16,039	18,206	19,478
Matane.....	20,456	27,539	36,303	45,272	55,414	64,182
Matane.....	..	..	..	20,586	25,488	30,243
Matapédia.....	..	..	..	24,886	29,926	35,939
Mégantic.....	23,878	31,314	33,633	35,492	40,357	45,325
Missisquoi.....	17,339	17,466	17,709	19,636	21,442	24,689
Montcalm.....	13,001	13,342	13,987	13,865	15,208	17,520
Montmagny.....	14,757	17,356	21,997	20,239	22,049	24,514
Montmorency.....	12,311	13,215	14,008	16,955	18,602	21,389
Montmorency No. 1.....	8,215	9,437	10,460	13,150	14,309	17,040
Montmorency No. 2.....	3,996	3,778	3,548	3,805	4,293	4,349
Montreal and Jesus Islands	371,086	566,168	738,210	1,020,018	1,135,431	1,358,075
Jesus Island.....	10,248	11,407	14,006	16,150	21,631	37,843
Montreal Island.....	360,838	554,761	724,205	1,003,868	1,116,800	1,320,232
Napierville.....	8,576	7,712	7,994	7,600	8,329	9,203
Nicolet.....	27,209	30,055	29,695	28,673	30,085	30,335

¹Includes districts of Abitibi and Mistassini.

7.—Populations of the Provinces and Territories, by Counties or Census Divisions,
Census Years 1901-51—continued

Province and County	1901	1911	1921	1931	1941	1951
No.	No.	No.	No.	No.	No.	No.
Quebec—concl.						
Papineau.....	25,726	27,180	26,553	29,246	27,551	29,381
Pontiac.....	21,442	21,123	20,271	21,241	19,852	20,696
Portneuf.....	27,159	30,529	32,311	35,963	38,996	43,453
Quebec.....	90,941	104,554	124,776	170,915	202,882	252,890
Richelieu.....	19,518	20,686	19,548	21,483	23,691	30,801
Richmond.....	17,821	21,282	24,067	24,956	27,493	34,102
Rimouski.....	19,701	23,951	27,520	33,151	44,233	53,220
Rouville.....	13,407	13,131	13,656	13,776	15,842	19,506
Saguenay ¹	11,263	15,402	16,663	22,161	29,419	42,664
Shefford.....	23,722	23,976	25,734	28,262	33,387	43,722
Sherbrooke.....	18,426	23,211	30,786	37,386	46,574	62,166
Soulanges.....	9,928	9,400	10,065	9,099	9,328	9,233
Stanstead.....	18,998	20,765	23,380	25,118	27,972	34,042
St. Hyacinthe.....	21,543	22,342	23,098	25,854	31,645	38,101
St. Jean.....	11,006	12,389	14,219	17,649	20,584	28,702
St. Maurice.....	29,311	35,045	50,845	69,095	80,352	93,855
Témiscamingue.....	4,280	8,293	11,764	20,609	40,471	55,102
Témiscouata.....	29,185	36,430	44,310	50,294	57,675	65,550
Rivière-du-Loup.....	..	..	..	33,871	54,493	87,375
Témiscouata.....	..	..	..	17,033	33,132	58,176
Terrebonne.....	26,816	29,018	33,908	38,611	46,864	67,437
Vaudreuil.....	10,445	11,039	11,555	12,015	13,170	17,378
Verchères.....	11,539	12,004	12,719	12,603	14,214	17,729
Wolfe.....	16,316	18,209	18,181	16,911	17,492	18,153
Yamaska.....	20,564	19,511	18,056	16,820	16,516	16,071
Ontario.....	2,182,947	2,527,292	2,933,662	3,431,683	3,787,655	4,597,542
Algoma.....	25,273	40,962	43,695	46,444	52,002	64,496
Brant.....	38,140	45,876	53,377	53,476	56,695	72,857
Bruce.....	59,020	50,032	44,285	42,286	41,680	41,311
Carleton.....	96,904	119,384	148,705	170,040	202,520	242,247
Cochrane.....	..	12,236	26,293	58,033	80,730	83,850
Dufferin.....	21,036	17,740	15,415	14,892	14,075	14,566
Dundas.....	19,757	18,165	17,309	16,098	16,210	15,818
Durham.....	27,570	26,411	24,629	25,782	25,215	30,115
Elgin.....	43,586	44,312	44,984	43,436	46,150	55,518
Essex.....	58,744	67,547	102,575	159,780	174,230	217,150
Frontenac.....	44,534	42,604	44,494	45,756	53,717	66,099
Glengarry.....	22,131	21,259	20,518	18,666	18,732	17,702
Grenville.....	21,021	17,545	16,644	16,327	15,989	17,045
Grey.....	69,590	65,891	59,051	57,699	57,160	58,960
Haldimand.....	21,233	21,562	21,287	21,428	21,854	24,138
Haliburton.....	6,559	6,320	6,209	5,997	6,695	7,670
Halton.....	19,545	22,208	24,899	26,558	28,515	44,003
Hastings.....	59,291	55,803	57,523	58,846	63,322	74,298
Huron.....	61,820	52,983	47,088	45,180	43,742	49,280
Kenora ²	10,369	19,507	19,139	25,919	33,372	39,212
Kent.....	57,194	55,995	57,949	62,865	66,346	79,128
Lambton.....	56,642	51,332	52,879	54,674	56,925	74,960
Lanark.....	37,232	34,375	32,993	32,856	33,143	35,601
Leeds.....	37,975	36,753	34,909	35,157	36,042	38,831
Lennox and Addington.....	23,346	20,386	18,994	18,883	18,469	19,544
Lincoln.....	30,552	35,429	49,625	54,199	65,066	89,366
Manitoulin.....	11,828	11,324	10,468	10,734	10,841	11,214
Middlesex.....	92,702	97,065	106,865	118,241	127,166	162,139
Muskoka.....	20,971	21,233	19,601	20,985	21,835	24,713
Nipissing.....	17,306	28,066	34,541	41,207	43,315	50,517
Norfolk.....	29,147	27,110	26,366	31,359	35,611	42,708
Northumberland.....	34,479	33,759	31,285	31,452	30,786	33,482
Ontario.....	40,408	41,006	46,494	59,667	65,718	87,088
Oxford.....	48,404	47,371	46,762	47,825	50,974	58,818
Parry Sound.....	24,936	26,547	26,880	25,900	30,083	27,371
Peel.....	21,475	22,102	23,896	28,156	31,539	55,673
Perth.....	49,871	49,182	50,843	51,392	49,694	52,584
Peterborough.....	36,066	40,783	42,261	43,958	47,392	60,789
Prescott.....	27,035	26,968	26,478	24,596	25,261	25,576
Prince Edward.....	17,864	17,150	16,806	16,693	16,750	18,559
Rainy River.....	6,568	10,429	13,518	17,359	19,132	22,132
Renfrew.....	52,715	51,856	51,505	52,227	54,720	66,717
Russell.....	20,282	21,649	21,121	18,487	17,448	17,666
Simcoe.....	82,315	85,053	84,032	83,667	87,057	106,482

¹ Includes New Quebec district.² Includes District of Patricia.

**7.—Populations of the Provinces and Territories, by Counties or Census Divisions,
Census Years 1901-51—continued**

Province and County or Division	1901	1911	1921	1931	1941	1951
	No.	No.	No.	No.	No.	No.
Ontario—concl.						
Stormont.....	27,042	24,775	25,134	32,524	40,905	48,458
Sudbury.....	16,103	29,778	43,029	58,251	80,815	109,590
Thunder Bay.....	11,219	39,496	49,560	65,118	85,200	105,367
Timiskaming.....	1,252	26,592	26,657	37,043	50,604	50,016
Victoria.....	31,952	30,179	27,786	25,844	25,934	27,127
Waterloo.....	52,594	62,607	75,266	89,852	98,720	126,123
Welland.....	31,588	42,163	66,668	82,731	93,836	123,233
Wellington.....	55,646	54,492	54,160	58,164	59,453	66,930
Wentworth.....	79,452	111,706	153,567	190,019	206,721	266,083
York.....	272,663	444,234	647,665	856,955	951,549	1,176,622
Manitoba	255,211	461,394	610,118	700,139	729,744	776,541
Division No. 1.....	8,693	15,401	19,897	22,817	27,813	23,861
Division No. 2.....	29,948	31,954	37,413	38,810	41,426	38,971
Division No. 3.....	20,193	23,218	24,042	26,753	24,781	22,870
Division No. 4.....	14,258	17,764	17,241	18,253	15,699	15,036
Division No. 5.....	9,748	20,120	33,789	46,228	48,424	52,453
Division No. 6.....	65,346	171,326	229,190	284,285	295,342	330,130
Division No. 7.....	24,652	33,904	35,810	36,912	36,669	40,791
Division No. 8.....	14,063	20,394	19,663	19,846	17,803	19,565
Division No. 9.....	12,520	23,929	39,528	44,957	47,277	58,875
Division No. 10.....	12,402	16,655	19,802	17,916	19,562	19,311
Division No. 11.....	15,580	22,305	27,059	28,100	26,637	25,101
Division No. 12.....	5,629	15,581	27,750	24,344	25,387	23,357
Division No. 13.....	9,254	16,374	25,941	24,263	26,033	24,537
Division No. 14.....	8,425	17,251	23,735	25,978	26,613	23,499
Division No. 15.....	1,849	4,682	8,856	10,008	12,059	12,492
Division No. 16.....	2,651	10,536	20,402	30,669	38,219	45,692
Saskatchewan	91,279	492,432	757,510	921,785	895,992	831,728
Division No. 1.....	9,657	32,301	35,297	41,544	34,171	35,481
Division No. 2.....	837	29,386	36,414	42,831	36,140	34,714
Division No. 3.....	467	14,363	38,900	46,881	38,648	29,477
Division No. 4.....	1,324	10,497	23,198	28,126	22,300	16,691
Division No. 5.....	17,502	40,505	50,543	53,948	51,022	48,877
Division No. 6.....	15,843	75,686	89,207	109,906	108,816	113,614
Division No. 7.....	3,417	39,896	60,433	63,230	53,852	50,421
Division No. 8.....	379	17,569	45,667	49,361	42,845	35,211
Division No. 9.....	13,481	38,870	57,265	60,539	62,334	54,939
Division No. 10.....	1,320	23,184	36,026	41,890	43,207	37,633
Division No. 11.....	694	41,007	68,023	87,976	80,012	84,365
Division No. 12.....	1,670	22,586	35,885	40,612	34,673	27,896
Division No. 13.....	141	19,611	35,483	42,632	36,346	30,721
Division No. 14.....	952	9,687	24,202	46,222	65,166	61,615
Division No. 15.....	13,174	44,120	65,284	83,703	89,036	81,160
Division No. 16.....	2,279	18,991	33,267	48,613	53,212	45,211
Division No. 17.....	1,057	9,279	17,911	27,315	33,173	29,048
Division No. 18.....	7,085	4,894	4,445	6,456	11,039	14,654
Alberta	73,022	374,295	588,454	731,605	796,169	939,501
Division No. 1.....	3,144	24,738	30,664	28,849	29,595	35,879
Division No. 2.....	11,357	38,779	46,823	57,186	58,563	71,480
Division No. 3.....	278	9,330	17,404	15,066	15,518	17,132
Division No. 4.....	2,536	18,375	23,302	29,067	29,383	28,984
Division No. 5.....	75	13,170	31,220	26,651	18,926	16,129
Division No. 6.....	11,358	75,364	112,689	140,200	146,990	195,352
Division No. 7.....	59	22,107	37,143	38,106	33,285	32,334
Division No. 8.....	11,904	42,976	56,820	61,016	67,630	73,997
Division No. 9.....	1,747	12,629	17,889	24,538	32,232	31,627
Division No. 10.....	5,607	29,226	45,579	58,049	58,807	50,016
Division No. 11.....	18,578	58,855	95,334	127,256	149,193	226,199
Division No. 12.....	..	4,258	8,589	13,730	17,431	17,740
Division No. 13.....	1,490	7,300	16,288	24,936	33,172	30,152
Division No. 14.....	1,012	9,998	25,299	39,508	47,899	46,791
Division No. 15.....	..	2,097	6,358	13,714	17,484	21,663
Division No. 16.....	..	1,263	12,181	27,196	30,349	32,436
Division No. 17.....	3,877	3,830	4,872	6,537	9,712	11,587

**7.—Populations of the Provinces and Territories, by Counties or Census Divisions,
Census Years 1901-51—concluded**

Province and Division	1901	1911	1921	1931	1941	1951
	No.	No.	No.	No.	No.	No.
British Columbia	178,657	392,480	524,582	694,263	817,861	1,165,210
Division No. 1.....	8,446	22,466	19,137	22,566	21,345	27,628
Division No. 2.....	23,516	28,373	31,075	40,455	48,266	60,060
Division No. 3.....	12,085	28,066	35,522	40,523	51,605	77,686
Division No. 4.....	53,641	183,108	256,579	379,858	449,376	649,238
Division No. 5.....	50,886	81,241	108,792	120,933	150,407	215,003
Division No. 6.....	11,563	19,031	24,484	30,025	30,710	41,823
Division No. 7.....	3,743	3,545	10,232	12,658	14,344	18,247
Division No. 8.....	4,523	8,411	17,631	21,534	25,276	40,276
Division No. 9.....	9,270	16,595	18,986	18,698	18,051	20,854
Division No. 10.....	984	1,644	2,144	7,013	8,481	14,395
Yukon Territory	27,219	8,512	4,157	4,230	4,914	9,096
Northwest Territories	20,129	6,507	8,143	9,316	12,028	16,004

Section 2.—Movement of Population

The traditional movement of population on the North American Continent from east to west has not been apparent in Canadian statistics for recent years. The most spectacular changes are shown in the Prairie Provinces and in British Columbia. The three Prairie Provinces lost by migration about 250,000 people between 1931 and 1941 and somewhat more from 1941 to 1951. British Columbia gained at the rate of about 8,000 a year during the 1930's and at about 23,000 a year during the 1940's. On an absolute basis, Ontario received more people than British Columbia but in relation to its larger population this growth was only one-third as important. Quebec's net change was negligible relative to its population. Nova Scotia gained during the 1930's but lost in the 1940's, the Maritime Provinces as a whole losing considerably over the two decades.

8.—Numerical Changes in the Populations of the Provinces, 1931 to 1941 and 1941 to 1951

Province	1931 to 1941	1941 to 1951
	No.	No.
Prince Edward Island.....	-3,000	-12,000
Nova Scotia.....	+8,000	-39,000
New Brunswick.....	-10,000	-42,000
Quebec.....	-3,000	-4,000
Ontario.....	+78,000	+305,000
Manitoba.....	-48,000	-60,000
Saskatchewan.....	-158,000	-200,000
Alberta.....	-42,000	-7,000
British Columbia.....	+82,000	+231,000

Section 3.—Intercensal Estimates of Population

Intercensal estimates of the population serve many uses. They constitute a base for vital statistics rates, per capita figures of production and trade, and other analyses. More recently, they have proved useful for estimates of labour force and other population characteristics of data collected in sample surveys.

Estimates are constructed in the first place for the total population of Canada and for each province. It is a requirement that these be made available about the date to which they apply, June 1 of each year. As final figures on the components of population changes are not ready at that date, the numbers of births, deaths and immigrants are partly filled in by extrapolation so that a preliminary figure is secured for the June to May interval. To avoid a cumulative error the calculation, in effect, starts anew with the latest preceding census for each year's estimates and uses the most up-to-date figures then available. To the census figures are added the births of the intervening years and the deaths are subtracted. Immigrants are added and emigrants are subtracted. On the last item of this calculation there is least information; it is possible to ascertain from United States immigration figures the number of Canadians entering the United States and sometimes the number of those going to the United Kingdom but data are not available for other countries.

The program of population estimates calls for two figures to be given in respect of each year; one based on preliminary materials, as described above, necessarily involving an extrapolation of birth, death and immigration returns, and the other on final figures subject to no further change which can be made available only when the last item of subsequent information has been secured. This last item is the succeeding decennial census and with the release of the 1951 Census totals the estimates for the decade 1941-51 were revised; the tables of this Section present the revised figures.

Since estimates for successive years are independently calculated back to the latest census, the best estimate of the balance of population change is not obtained by subtracting the figure for one year from that for the year following. Much interest attaches to the year-to-year balance and the following statement, which gives all available data on that point, is included.

Year	Calendar-Year Data ¹				Estimated Population as at June 1 ²
	Births	Deaths	Natural Increase	Immi- gration	
1941.....	255,224	114,500	140,724	9,325	11,490,000
1942.....	272,184	112,848	159,336	7,576	11,637,000
1943.....	283,423	118,531	164,892	8,502	11,778,000
1944.....	284,220	116,052	168,168	12,793	11,929,000
1945.....	288,730	113,414	175,316	22,711	12,065,000
1946.....	330,732	114,931	215,801	71,691	12,268,000
1947.....	359,094	117,725	241,369	64,127	12,527,000
1948.....	347,307	119,384	227,923	125,414	12,799,000
1949 ³	366,139	124,047	242,092	95,217	13,423,000
1950 ³	370,578 ³	123,649 ³	246,929 ³	73,912	13,688,000
1951 ³	379,412 ³	125,901 ³	253,511 ³	194,391	13,984,000

¹ Exclusive of the Yukon and Northwest Territories.
subject to adjustment as later data are made available.

² These estimates are
³ Includes Newfoundland.

9.—Estimates of Population, by Provinces and Territories, Intercensal Years 1931-52

NOTE.—At every census the previous post-censal estimates, made at June 1 each year, are adjusted to the newly recorded population figures. Figures for 1867-1904 will be found at p. 141 of the 1936 Year Book and for 1905-30 at p. 127 of the 1946 edition. Figures for all provinces for 1931, 1941 and 1951 are census figures while those for the Prairie Provinces are for the 1936 and 1946 Censuses.

Year	N.T'd.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N. W. T.	Canada ¹
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
1931.....	..	88	513	408	2,874	3,432	700	922	732	694	4	9	10,376
1932.....	..	89	519	414	2,925	3,473	705	924	740	707	4	10	10,510
1933.....	..	90	525	419	2,972	3,512	708	926	750	717	4	10	10,633
1934.....	..	91	531	423	3,016	3,544	709	928	758	727	4	10	10,741
1935.....	..	92	536	428	3,057	3,575	710	930	765	736	5	11	10,845
1936.....	..	93	543	433	3,099	3,606	711	931	773	745	5	11	10,950
1937.....	..	93	549	437	3,141	3,637	715	922	776	759	5	11	11,045
1938.....	..	94	555	442	3,183	3,672	720	914	781	775	5	11	11,152
1939.....	..	94	561	447	3,230	3,708	726	906	786	792	5	12	11,267
1940.....	..	95	569	452	3,278	3,747	728	900	790	805	5	12	11,381
1941.....	..	95	578	457	3,332	3,788	730	896	796	818	5	12	11,507
1942.....	..	90	591	464	3,390	3,884	724	848	776	870	5	12	11,654
1943.....	..	91	606	463	3,457	3,915	723	838	785	900	5	12	11,795
1944.....	..	91	611	461	3,500	3,963	727	836	808	932	5	12	11,946
1945.....	..	92	619	467	3,560	4,000	727	833	808	949	5	12	12,072
1946.....	..	94	608	478	3,629	4,093	727	833	803	1,003	8	16	12,292
1947.....	..	94	615	488	3,710	4,176	739	836	825	1,044	8	16	12,551
1948.....	..	93	625	498	3,788	4,275	746	838	854	1,082	8	16	12,823
1949.....	345	94	629	508	3,882	4,378	757	832	885	1,113	8	16	13,447
1950.....	351	96	638	512	3,969	4,471	768	833	913	1,137	8	16	13,712
1951.....	361	98	643	516	4,056	4,598	776	832	939	1,165	9	16	14,009
1952.....	374	103	653	526	4,174	4,766	798	843	970	1,198	9	16	14,430

¹ Estimates for Newfoundland prior to union with Canada, which took place on Mar. 31, 1949, are not included in Canada totals.

Section 4.—Rural and Urban Population

Prior to 1951, the population residing within the boundaries of all incorporated cities, towns and villages of a province was classified as urban and the remainder as rural. Since the laws governing incorporation vary among provinces there was no uniform line of demarcation between the rural and urban population throughout Canada. In the 1951 Census the aggregate size of population within a given area rather than provincial legal status is the main criterion for the rural-urban classification. The population residing in cities, towns and villages of 1,000 or over, whether incorporated or unincorporated, as well as the population of all parts of census metropolitan areas has been defined as urban and that outside such localities as rural.

Table 10 presents the rural and urban population by provinces and territories for the years 1941 and 1951. For comparative purposes the rural and urban population has been tabulated by both the 1941 and 1951 rural-urban definitions. The rural is further classified by farm and non-farm residence and the urban by size of locality in Table 11.

10.—Rural and Urban Populations, by Provinces or Territories, 1941 and 1951

Province or Territory	1941 Definition ¹				1951 Definition ¹			
	Rural		Urban		Rural		Urban	
	1941	1951	1941	1951	1941	1951	1941	1951
	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland.....	262,509	257,039	59,310	104,377	202,820	206,621	118,999	154,795
P. E. Island.....	70,707	70,807	24,340	27,622	74,078	73,744	20,969	24,685
Nova Scotia.....	310,422	344,865	267,540	297,719	288,900	297,753	289,062	344,831
New Brunswick.....	313,978	348,185	143,423	167,512	282,290	300,686	175,111	215,011
Quebec.....	1,222,198	1,326,883	2,109,684	2,728,798	1,274,935	1,358,363	2,056,947	2,697,318
Ontario.....	1,449,022	1,844,316	2,338,633	2,753,226	1,196,161	1,346,443	2,591,494	3,251,099
Manitoba.....	407,871	392,112	321,873	384,429	370,066	336,961	359,678	439,580
Saskatchewan.....	600,846	461,047	295,146	370,681	703,710	579,258	192,282	252,470
Alberta.....	489,583	451,313	306,586	488,188	530,640	489,826	265,529	449,675
British Columbia..	374,467	550,158	443,394	615,052	268,607	371,739	549,254	793,471
Yukon Territory...	3,117	5,478	1,797	3,618	3,871	6,502	1,043	2,594
N.W.T.....	12,028	16,004	—	—	10,618	13,280	1,410	2,724
Canada.....	5,254,239²	6,068,207	6,252,416²	7,941,222	5,003,876²	5,381,176	6,502,779²	8,628,253

¹ For differences in the definition of "rural" and "urban" as used in the 1941 and 1951 Censuses, see text p. 143. ² Totals for Canada do not include Newfoundland; figures shown for that Province are from the 1945 Census of Newfoundland.

11.—Rural Populations classified by Farm and Non-Farm and Urban Populations classified by Size Groups, by Provinces or Territories, 1951

Province or Territory	Rural			Urban				
	Farm ¹	Non-Farm	Total	1,000 to 9,999	10,000 to 29,999	30,000 to 99,999	100,000 or Over	Total ²
	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland.....	15,456	191,165	206,621	100,375	—	52,873	—	154,795
P. E. Island.....	46,757	26,987	73,744	8,798	15,887	—	—	24,685
Nova Scotia.....	112,135	185,618	297,753	166,121	61,802	116,906	—	344,831
New Brunswick...	145,771	154,915	300,686	86,908	76,430	50,779	—	215,011
Quebec.....	766,910	591,453	1,358,363	750,436	504,523	247,548	1,185,536	2,697,318
Ontario.....	678,043	668,400	1,346,443	714,343	463,404	764,448	1,307,751	3,251,099
Manitoba.....	214,435	122,526	336,961	93,965	109,036	—	235,710	439,580
Saskatchewan.....	398,279	180,979	579,258	86,379	41,504	124,587	—	252,470
Alberta.....	339,955	149,871	489,826	120,700	39,311	—	288,691	449,675
British Columbia..	109,919	261,820	371,739	157,333	180,240	109,707	344,833	793,471
Yukon Territory..	44	6,458	6,502	2,594	—	—	—	2,594
N.W.T.....	28	13,252	13,280	2,724	—	—	—	2,724
Canada.....	2,827,732	2,553,444	5,381,176	2,290,674	1,492,137	1,466,848	3,362,521	8,628,253

¹ Exclusive of 84,264 persons living on farms in localities classed as "urban".

² Includes a few metropolitan area parts with less than 1,000 population.

Section 5.—Sex and Age Distribution

Sex.—The sex distribution of the Canadian people has been characterized since early colonial times by a preponderance of males, although this condition has been greatly modified in more recent years. In 1666, during the early years of settlement by French immigrants, 63.3 p.c. of the population were males. In 1784, when British immigration to Canada was commencing, there were 54,064 males and 50,759 females and by the middle of the nineteenth century there were 449,967 males to 440,294 females in Lower Canada and 499,067 males to 452,937 females in the more newly settled Upper Canada. Since Confederation the newer sections of Canada—the west and the northwest—have shown the greatest excess of males.

From 1871 to 1941, for Canada as a whole, the proportion of males never dropped below 51 p.c. of the total population, whereas for Western Canada it varied between 53 p.c. and 59 p.c. By 1951, however, the proportion of males to the total population had dropped to 50·6 p.c. for Canada as a whole.

12.—Sex Distribution of the Population, by Provinces or Territories, Census Years 1921-51

NOTE.—Figures for the Censuses of 1871, 1881, 1891, 1901 and 1911 are given at p. 150 of the 1948-49 Year Book.

Province or Territory	1921		1931		1941		1951	
	Male	Female	Male	Female	Male	Female	Male	Female
	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland.....	...	...	...	...	...	...	185,143	176,273
P. E. Island.....	44,887	43,728	45,392	42,646	49,228	45,819	50,218	48,211
Nova Scotia.....	266,472	257,365	263,104	249,742	296,044	281,918	324,955	317,629
New Brunswick....	197,351	190,525	208,620	199,599	234,097	223,304	259,211	256,486
Quebec.....	1,179,651	1,180,859	1,447,326	1,427,336	1,672,982	1,658,900	2,022,127	2,033,554
Ontario.....	1,481,890	1,451,772	1,748,844	1,682,839	1,921,201	1,866,454	2,314,170	2,283,372
Manitoba.....	320,567	289,551	368,065	332,074	378,079	351,665	394,818	381,723
Saskatchewan.....	413,700	343,810	499,935	421,850	477,563	418,429	434,568	397,160
Alberta.....	324,208	264,246	400,199	331,406	426,458	369,711	492,192	447,309
British Columbia..	293,409	231,173	385,219	309,044	435,031	382,830	596,961	568,249
Yukon.....	2,819	1,338	2,825	1,405	3,153	1,761	5,467	3,639
N.W.T.....	4,204	3,939	5,012	4,304	6,700	5,328	9,053	6,951
Canada.....	4,529,643¹	4,258,306	5,374,541	5,002,245	5,900,536	5,606,119	7,088,873	6,920,556

¹ Includes 485 members of the Royal Canadian Navy recorded separately in 1921.

Age.—The age distribution of a population is fundamental to most, if not all, other analyses, for the age factor influences employment, marriage, birth rates and death rates, education, immigration, criminology and a multitude of events and activities that are of great importance in the national life.

Immigration has a strong influence on age distribution: it does not directly affect the very young sections of the population except to a small degree, but it immediately affects the age groups between the 'teens' and the 'twenties' and its effects are carried to the older groups as time goes by. Thus, the influence of the very heavy immigration of the early years of the century (1900-11) is indicated by the fact that, in 1901, 175·9 persons per 1,000 of the total population were in the age group 20-29 years and 131·3 persons per 1,000 in the group 30-39 years: a decade later, 190·7 per 1,000 were in the former group and 142·8 in the latter. Since immigration slowed down very decidedly after the outbreak of war in 1914, the influence of these earlier accretions to the population has crept through the upper age groups year by year until it has now reached those of the population in their 'fifties'.

Between 1931 and 1941 a more pronounced general ageing of the population is shown owing to practically non-existent migration and a lower birth rate—factors that were emphasized during the depression years. In 1921 the number per 1,000 of total population between 40 and 59 years of age was 183·1; it was 201 in 1931 and 209 in 1941. Greater proportional increases, however, are shown by the group 60 years of age or over; this group represented 75 per 1,000 of the total population in 1921, 84 in 1931 and no less than 102 per 1,000 in 1941.

In 1951 there were 203·19 persons per 1,000 of total population between 40 and 59 years of age and 113·66 in the group 60 years of age or over. However, there were 222·7 persons per 1,000 of total population in the under 10 years of age group in 1951 as compared with 182·3 in 1941, 212·7 in 1931 and 240·0 in 1921.

Table 13 shows the population of Canada classified by five-year age groups and sex for the census years 1931, 1941 and 1951. The provincial distribution from the 1951 Census by specified age groups is shown in Table 14.

13.—Male and Female Populations by Age Groups, Census Years 1931-51

Age Group	1931 ¹		1941		1951	
	Male	Female	Male	Female	Male	Female
	No.	No.	No.	No.	No.	No.
0-4 years.....	543,299	531,293	533,903	517,951	879,063	843,046
5-9 ".....	572,648	560,296	529,092	516,728	713,873	683,952
10-14 ".....	543,067	531,173	556,304	544,573	575,122	555,661
15-19 ".....	525,536	514,474	565,212	554,823	532,180	525,792
20-24 ".....	463,978	447,584	517,956	514,470	537,535	551,106
25-29 ".....	410,220	376,407	488,340	478,650	552,812	578,403
30-34 ".....	368,346	340,792	431,591	412,255	512,557	530,177
35-39 ".....	359,318	329,474	396,453	363,101	503,571	495,562
40-44 ".....	347,989	298,416	348,616	327,929	445,800	422,767
45-49 ".....	321,749	263,770	332,503	302,643	387,708	356,971
50-54 ".....	267,526	221,408	315,866	275,838	340,461	322,195
55-59 ".....	199,296	167,910	275,234	231,658	292,564	278,126
60-64 ".....	157,019	137,722	218,557	188,594	264,324	241,828
65-69 ".....	120,770	110,467	162,517	145,207	228,076	205,421
70-74 ".....	88,630	83,040	111,152	105,949	160,398	154,674
75-79 ".....	50,046	48,624	67,200	68,495	94,130	94,261
80-84 ".....	23,891	25,300	34,083	37,431	45,963	50,828
85-89 ".....	8,670	10,469	12,621	15,015	17,539	22,060
90 or over.....	2,543	3,626	3,336	4,809	5,197	7,726
Totals.....	5,374,541	5,002,245	5,900,536	5,606,119	7,088,873	6,920,556

¹ Persons whose ages were not stated have been pro-rated over the various age groups.

14.—Age Distribution of the Population, by Provinces or Territories, 1951

Province or Territory	0-4	5-9	10-14	15-19	20-24	25-34
	No.	No.	No.	No.	No.	No.
Newfoundland.....	58,831	46,433	36,126	30,403	26,718	48,871
Prince Edward Island.....	13,213	10,358	9,294	8,296	6,557	12,739
Nova Scotia.....	82,540	68,816	58,131	51,533	46,275	93,276
New Brunswick.....	74,869	59,504	49,541	42,850	36,559	72,167
Quebec.....	541,524	463,444	361,140	337,501	340,902	629,310
Ontario.....	514,722	399,292	325,300	315,685	352,360	738,282
Manitoba.....	89,977	72,594	60,143	57,188	58,752	120,780
Saskatchewan.....	99,855	81,782	73,615	68,482	62,613	122,602
Alberta.....	116,846	93,063	76,897	73,941	75,527	148,666
British Columbia.....	125,886	99,892	78,609	70,230	79,824	182,370
Yukon Territory.....	1,319	809	526	435	934	2,115
Northwest Territories.....	2,527	1,838	1,461	1,428	1,620	2,771
Canada.....	1,722,109	1,397,825	1,130,783	1,057,972	1,088,641	2,173,949
	35-44	45-54	55-64	65-69	70+	Total
	No.	No.	No.	No.	No.	No.
Newfoundland.....	41,417	27,883	21,244	9,071	14,419	361,416
Prince Edward Island.....	11,641	8,985	7,639	3,268	6,439	98,429
Nova Scotia.....	82,912	57,822	46,354	19,440	35,485	642,584
New Brunswick.....	61,576	44,147	35,451	14,286	24,747	515,697
Quebec.....	518,290	375,657	255,816	93,161	138,936	4,055,681
Ontario.....	643,139	515,607	392,792	155,097	245,266	4,597,542
Manitoba.....	105,984	78,852	66,803	27,347	38,121	776,541
Saskatchewan.....	107,217	79,188	69,161	29,103	38,110	831,728
Alberta.....	123,480	92,480	71,658	29,439	37,504	939,501
British Columbia.....	168,819	124,693	108,750	52,927	73,210	1,165,210
Yukon Territory.....	1,313	750	428	186	281	9,096
Northwest Territories.....	1,912	1,271	746	172	258	16,004
Canada.....	1,867,700	1,407,335	1,076,842	433,497	652,776	14,009,429

Section 6.—Marital Status

Next to sex and age distribution of a population, that of marital status is probably the most fundamental. Its incidence is twofold: 'vital' and 'economic and social'.

The vital basis lies in the influence of the marriage state on the fertility of a population and, from this angle, close analyses of marital status, by age, are important. The ages of females between 15 and 45 years have more significance than those of males; if the proportion of females in this group is small, the expected proportion of births will also be small. It has been shown that for the Canadian population the combined influences of age of the population, age of the married females, and proportion of females married have become steadily more favourable to the birth rate from 1871 to 1921 but that, since the latter date, the trend has been less favourable.

**15.—Marital Status of the Population, 15 Years of Age or Over, by Sex,
Census Years 1911-51**

NOTE.—Persons whose marital status was not stated have been pro-rated and assigned to the various categories shown in this table.

Census Year and Sex	Single		Married		Widowed		Divorced		Total
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	
1911.....M.	1,182,167	45.12	1,345,386	51.35	90,121	3.44	2,143 ¹	0.08	2,619,817
F.	770,174	34.85	1,256,909	56.87	180,910	8.18	2,283 ¹	0.10	2,210,276
1921.....M.	1,177,952	39.21	1,702,526	56.67	120,020	4.00	3,675 ¹	0.12	3,004,173
F.	884,568	32.04	1,635,009	59.23	237,112	8.59	3,736 ¹	0.14	2,760,425
1931.....M.	1,522,491	40.98	2,039,918	54.90	149,063	4.01	4,055	0.11	3,715,527
F.	1,149,329	34.01	1,938,094	57.35	288,668	8.54	3,392	0.10	3,379,483
1941.....M.	1,703,795	39.80	2,400,100	56.06	170,773	3.99	6,569	0.15	4,281,237
F.	1,328,529	32.99	2,336,485	58.02	354,390	8.80	7,463	0.19	4,026,867
1951.....M.	1,579,351	32.1	3,141,754	63.8	186,595	03.8	13,115	00.3	4,920,815
F.	1,242,437	25.7	3,119,824	64.5	456,753	09.4	18,883	00.4	4,837,897

¹ Includes legally separated.

Although Canada has more single than married citizens, information from the 1951 Census shows that the nation's married population grew more than twice as fast as the single population in the decade between 1941 and 1951. With a total population increase of nearly 22 p.c., the number of single persons in Canada increased by 13.5 p.c., married by 32.2 p.c., widowed by 22.5 p.c. and divorced by 128.0 p.c. The entry of Newfoundland into Confederation accounted for 3.3 p.c. of the increase in single persons, 2.9 p.c. in married and widowed persons and 0.5 percent in divorced persons. Other striking statistics of marital status are the excess of married males over married females, the great preponderance of widows compared with widowers and the large and increasing number of divorced persons.

16.—Marital Status of the Population, by Age Groups and Sex, 1951

Age Group and Sex		Single	Married	Widowed	Divorced	Total
		No.	No.	No.	No.	No.
Under 15 years.....	M.	2,168,058	—	—	—	2,168,058
	F.	2,082,659	—	—	—	2,082,659
	T.	4,250,717	—	—	—	4,250,717
15 - 19 “	M.	526,909	5,255	15	1	532,180
	F.	484,056	41,633	83	20	525,792
	T.	1,010,965	46,888	98	21	1,057,972
20 - 24 “	M.	400,136	137,054	197	148	537,535
	F.	267,409	282,290	823	584	551,106
	T.	667,545	419,344	1,020	732	1,088,641
25 - 34 “	M.	294,318	766,504	2,409	2,138	1,065,369
	F.	192,921	901,073	9,496	5,090	1,108,580
	T.	487,239	1,667,577	11,905	7,228	2,173,949
35 - 44 “	M.	134,409	803,711	7,431	3,820	949,371
	F.	113,554	771,939	26,086	6,750	918,329
	T.	247,963	1,575,650	33,517	10,570	1,867,700
45 - 54 “	M.	93,992	613,008	17,637	3,532	728,169
	F.	76,738	539,854	58,437	4,137	679,166
	T.	170,730	1,152,862	76,074	7,669	1,407,335
55 - 64 “	M.	64,748	453,977	36,041	2,122	556,888
	F.	52,010	360,651	105,626	1,667	519,954
	T.	116,758	814,628	141,667	3,789	1,076,842
65 - 69 “	M.	27,706	170,043	29,641	686	228,076
	F.	19,717	115,574	69,783	347	205,421
	T.	47,423	285,617	99,424	1,033	433,497
70 years or over.....	M.	37,133	192,202	93,224	668	323,227
	F.	36,032	106,810	186,419	288	329,549
	T.	73,165	299,012	279,643	956	652,776
All Ages.....	M.	3,747,409	3,141,754	186,595	13,115	7,088,873
	F.	3,325,096	3,119,824	456,753	18,883	6,920,556
	T.	7,072,505	6,261,578	643,348	31,998	14,009,429

Section 7.—Origins

A population composed of diverse racial stocks gives rise to political, economic and social problems quite different in nature from those of one with a small admixture of foreign elements, although, to the extent that certain racial stocks are more readily assimilated than others, the problems are mitigated. It is equally true that the different educational, moral, economic, religious and political backgrounds of a people of mixed origins lend variety and diversity to the national life.

The two basic stocks of the Canadian people are the French and the English: historically the French is much the older and, excepting at the time of the Census of 1921, has exceeded in numbers any one of the basic British stocks.

For purposes of the census, a person's origin or cultural group is traced through his father. For example, if a person's father is German and his mother Norwegian, the origin is entered as "German". Wherever possible the origin of a person is established by asking the language spoken by the person or by his paternal ancestor when he first came to Canada.

Table 17 shows the population of Canada for the census years 1931, 1941 and 1951 classified by detailed origins, while Table 18 presents the 1951 provincial distribution based on a classification of the numerically largest origins in Canada.

17.—Origins of the Population, Census Years 1931-51

NOTE.—Figures for the Censuses of 1871, 1881, 1901, 1911 and 1921 are given in the 1948-49 Year Book, p. 154.

Origin	1931	1941	1951	Origin	1931	1941	1951
No.	No.	No.	No.	No.	No.	No.	No.
British	5,381,071	5,715,904	6,709,685	Other European—			
English.....	2,741,419	2,968,402	3,630,344	concl.			
Irish.....	1,230,808	1,267,702	1,439,635	Norwegian.....	93,243	100,718	119,266
Scottish.....	1,346,350	1,403,974	1,547,470	Polish.....	145,503	167,485	219,845
Other.....	62,494	75,826	92,236	Romanian.....	29,056	24,689	23,601
Other European	4,753,242	5,526,964	6,872,889	Russian.....	88,148	83,708	91,279
French.....	2,927,990	3,483,038	4,319,167	Swedish.....	81,306	85,396	97,780
Austrian.....	43,639	37,715	32,231	Ukrainian ¹	225,113	305,929	395,043
Belgian.....	27,585	29,711	35,148	Yugoslavia.....	16,174	21,214	21,404
Czech and				Other.....	9,392	9,787	35,616
Slovak.....	30,401	42,912	63,959	Asiatic	84,548	74,064	72,327
Danish.....	34,118	37,439	42,671	Chinese.....	46,519	34,627	32,528
Finnish.....	43,885	41,683	43,745	Japanese.....	23,342	23,149	21,663
German.....	473,544	464,682	619,995	Other.....	14,687	16,288	18,636
Greek.....	9,444	11,692	13,966	Other Origins	149,027	184,448	354,028
Hungarian.....	40,582	54,598	60,460	Indian and			
Icelandic.....	19,382	21,050	23,307	Eskimo.....	128,890	125,521	165,607
Italian.....	98,173	112,625	152,245	Negro.....	19,456	22,174	18,020
Jewish.....	156,726	170,241	181,670	Other and not			
Lithuanian.....	5,876	7,789	16,224	stated.....	9,579	42,028 ²	170,401
Netherlands.....	148,962	212,863	264,267	Totals	10,376,786	11,506,655	14,009,429

¹ Includes Bukovinian, Galician and Ruthenian.

² Includes 35,416 half-breeds.

18.—Origins of the Population, by Provinces or Territories, 1951

Province or Territory	British Isles	French	German	Italian	Jewish	Nether-lands
	No.	No.	No.	No.	No.	No.
Newfoundland.....	337,780	9,841	368	103	214	176
Prince Edward Island.....	80,669	15,477	317	56	21	677
Nova Scotia.....	482,571	73,760	28,751	2,494	2,053	20,819
New Brunswick.....	294,694	197,631	2,623	635	1,095	5,920
Quebec.....	491,818	3,327,128	12,249	34,165	73,019	3,129
Ontario.....	3,081,919	477,677	222,028	87,622	74,920	98,373
Manitoba.....	362,550	66,020	54,251	2,882	18,840	42,341
Saskatchewan.....	351,862	51,930	135,584	1,028	2,702	29,818
Alberta.....	451,709	56,185	107,985	5,996	3,935	29,385
British Columbia.....	766,189	41,919	55,307	17,207	4,858	33,388
Yukon and Northwest Territories.....	7,924	1,599	532	57	13	241
Canada.....	6,709,685	4,319,167	619,995	152,245	181,670	264,267
	Polish	Russian	Scandi-navian	Ukrainian	Indian and Eskimo	Total ¹
	No.	No.	No.	No.	No.	No.
Newfoundland.....	79	79	569	20	1,127	361,416
Prince Edward Island.....	54	12	253	47	257	98,429
Nova Scotia.....	2,364	699	3,193	1,235	2,720	642,584
New Brunswick.....	340	220	3,367	129	2,255	515,697
Quebec.....	16,998	7,909	5,390	12,921	16,620	4,055,681
Ontario.....	89,825	16,885	37,430	93,595	37,388	4,597,542
Manitoba.....	37,933	8,463	32,921	98,753	21,050	776,541
Saskatchewan.....	26,034	19,453	62,439	78,399	22,253	831,728
Alberta.....	29,661	15,353	70,929	86,957	21,210	939,501
British Columbia.....	16,301	22,113	65,612	22,613	28,504	1,165,210
Yukon and Northwest Territories.....	256	93	921	374	12,223	25,100
Canada.....	219,845	91,279	283,024	395,043	165,607	14,009,429

¹ Includes "others" and "not stated".

Section 8.—Religious Denominations

At each census the actual numbers attached to any religious denomination, as reported by the persons enumerated, have been recorded. The distribution of the principal denominations as at the Censuses of 1931, 1941 and 1951 is given in Table 19.

19.—Principal Religious Denominations of the Population, Censuses of 1931-51, with Percentage Distribution 1951

NOTE.—More detailed figures for the Censuses of 1871, 1881, 1891, 1901, 1911 and 1921 are given in the 1948-49 Year Book, p. 155.

Denom-ination	1931	1941	1951		Denom-ination	1931	1941	1951	
	No.	No.	No.	p.c.		No.	No.	No.	p.c.
Baptist.....	443,341	483,592	519,585	3.71	Roman Catholic....	4,098,734	4,800,895	6,069,496	43.32
Church of England in Canada.....	1,635,615	1,751,188	2,060,720	14.71	Ukrainian (Greek Catholic)...	186,654 ¹	185,657 ¹	190,831	1.36
Greek Orthodox...	102,389	139,629	172,271	1.23	United Church of Canada.....	2,017,375	2,204,875	2,867,271	20.47
Jewish.....	155,614	168,367	204,836	1.46	Other.....	383,406	430,772	571,811	4.08
Lutheran.....	394,194	401,153	444,923	3.18					
Mennonite....	88,736	111,380	125,938	0.90					
Presbyterian	870,728	829,147	781,747	5.58					
					Totals....	10,376,786	11,506,655	14,009,429	100.00

¹ Includes other Greek Catholic rites.

Section 9.—Countries of Birth

The census collects information on both country of birth of immigrant arrivals in Canada and province of birth of the native-born. For persons born outside of Canada the country of birth, as constituted at the date of the Census, is recorded. Table 20 gives the total population by country of birth for the census years 1931, 1941 and 1951.

20.—Countries of Birth of the Population, Census Years 1931-51

NOTE.—Figures for the Censuses of 1871, 1881, 1891, 1901, 1911 and 1921 are given in the 1948-49 Year Book, p. 158.

Country of Birth	1931	1941	1951	Country of Birth	1931	1941	1951
	No.	No.	No.		No.	No.	No.
Canada.....	8,069,261	9,487,808	11,949,518	Europe—concl.			
United Kingdom.....	1,138,942 ¹	960,125 ¹	912,482	Union of Soviet Socialist Republics ²	133,869	124,402	188,292
Other Commonwealth.....	45,888	43,644	20,567	Scandinavian countries ³	90,042	72,473	64,522
Europe.....	714,462	653,705	801,618	Central European countries ⁴	317,350	309,360	305,192
Belgium.....	17,033	14,773	17,251	Other Europe.....	11,002	9,810	38,143
Finland.....	30,354	24,387	22,035	Asia.....	60,608	44,443	37,145
France.....	16,756	13,795	15,650	United States.....	344,574	312,473	282,010
Germany.....	39,163	28,479	42,693	Other countries.....	3,051	3,512	6,089
Greece.....	5,579	5,871	8,594				
Italy.....	42,578	40,432	57,789				
Netherlands.....	10,736	9,923	41,457				
				Totals.....	10,376,786	11,506,655	14,009,429

¹ Includes Republic of Ireland in 1931 and 1941. Includes Denmark, Iceland, Norway and Sweden.

² Includes Lithuania and Ukraine.

³ In-

⁴ Includes Austria, Czechoslovakia, Hungary, Yugoslavia, Poland and Roumania.

⁵ Includes "birthplace not stated".

Section 10.—Citizenship

Results of the 1951 Census show that 96.85 p.c. of the total population were Canadian citizens while 0.74 p.c. were citizens of other Commonwealth countries, 1.69 p.c. European countries, 0.11 p.c. Asiatic countries, 0.49 p.c. the United States and 0.12 p.c. other countries. Information from the 1951 Census on the citizenship of the population classified by birthplace was not available at the time of the preparation of this Chapter. Figures from the 1941 Census are given in Table 22. According to that table, over 80 p.c. of the United States-born persons in Canada, who formed 2.7 p.c. of the total population, had become Canadian citizens together with 74.7 p.c. of the Continental European-born; of those born in Asiatic countries, 72.7 p.c. remained aliens. Of the total population, only 2.4 p.c. were aliens.

21.—Numerical and Percentage Distribution of the Population, by Country of Allegiance, 1951

Country of Allegiance	Number	Percent- age of Total	Country of Allegiance	Number	Percent- age of Total
Canada.....	13,567,939	96.85	Continental Europe—concl. Roumania.....	3,684	0.03
Other Commonwealth.....	104,071	0.74	Russia (U.S.S.R.).....	46,267	0.33
United States.....	69,000	0.49	Sweden.....	2,378	0.02
Continental Europe—			Yugoslavia.....	6,718	0.05
Austria.....	3,769	0.03	Other European.....	9,373	0.07
Belgium.....	4,893	0.03	Totals, Continental Europe	236,400	1.69
Czechoslovakia.....	9,990	0.07	Asiatic countries—		
Denmark.....	4,432	0.03	China.....	12,808	0.09
Finland.....	6,080	0.04	Japan.....	1,312	0.01
France.....	5,031	0.04	Other Asiatic.....	1,002	0.01
Germany.....	12,926	0.09	Totals, Asiatic.....	15,122	0.11
Hungary.....	7,871	0.06	Other countries ¹	16,807	0.12
Iceland.....	137	--	Grand Totals.....	14,009,429	100.00
Italy.....	22,616	0.16			
Netherlands.....	32,179	0.23			
Norway.....	2,375	0.02			
Poland.....	55,771	0.40			

¹ Includes persons who reported themselves as stateless.

22.—Citizenship of the Population, by Nativity, 1941

Country of Birth	Canadian Nationals	Aliens	Total	Country of Birth	Canadian Nationals	Aliens	Total
	No.	No.	No.		No.	No.	No.
Canada.....	9,475,252	12,521	9,487,808	Continental Europe—concl.			
Other Common- wealth.....	979,680	2,566	1,003,769	Union of Soviet So- cialist Republics..	96,236	21,235	117,598
United States.....	250,929	61,427	312,473	Sweden.....	21,450	5,700	27,160
Continental Europe—				Yugoslavia.....	11,811	5,601	17,416
Austria.....	40,898	9,603	50,713	Other.....	19,642	7,253	26,910
Belgium.....	10,847	3,917	14,773	Totals, Continental Europe.....	488,571	164,838	653,705
Czechoslovakia.....	14,300	11,262	25,564	Asia—			
Denmark.....	9,422	4,540	13,974	China.....	3,306	25,786	29,095
Finland.....	12,647	11,734	24,387	Japan.....	3,694	5,767	9,462
France.....	10,518	3,269	13,795	Other.....	5,105	779	5,886
Germany.....	20,771	7,679	28,479	Totals, Asia.....	12,105	32,332	44,443
Hungary.....	21,445	10,359	31,813	Other.....	2,993	519	3,512
Italy.....	33,661	6,764	40,432	Not stated.....	780	137	945
Netherlands.....	6,641	3,276	9,923	Grand Totals.....	11,210,310	274,340	11,506,651
Norway.....	20,966	5,933	26,914				
Poland.....	114,755	40,624	155,400				
Roumania.....	22,561	5,889	28,454				

¹ Includes 21,515 British-born persons who had not, at the date of the Census, acquired Canadian domicile.

Section 11.—Languages and Mother Tongues

Official language is not to be confused with mother tongue. Mother tongue is the language a person first spoke in childhood and still understands; official language refers only to the English and French languages. The numbers speaking one, both or neither of the official languages are given, by provinces, in Table 23. Information from the 1951 Census on official languages classified by origin was not available at the time of preparation of this Chapter. Such data for 1941 will be found in the 1947 Year Book, p. 122.

23.—Population Speaking One, Both or Neither of the Official Languages, by Provinces or Territories, 1951

NOTE.—Children under 5 years of age have been classed as speaking the language of the home.

Province or Territory	Official Language				Total
	English Only	French Only	English and French	Neither English nor French	
Newfoundland.....	356,377	153	3,990	896	361,416
Prince Edward Island.....	83,743	914	8,745	27	98,429
Nova Scotia.....	595,257	7,462	39,524	341	642,584
New Brunswick.....	318,560	100,712	96,095	330	515,697
Quebec.....	462,813	2,534,242	1,038,130	20,496	4,055,681
Ontario.....	4,115,584	78,974	359,965	43,019	4,597,542
Manitoba.....	685,914	7,869	58,441	24,317	776,541
Saskatchewan.....	767,248	4,656	40,789	19,035	831,728
Alberta.....	868,696	5,922	40,785	24,098	939,501
British Columbia.....	1,112,937	727	39,433	12,113	1,165,210
Yukon Territory.....	8,337	10	519	230	9,096
Northwest Territories.....	6,929	171	1,031	7,873	16,004
Canada.....	9,387,395	2,741,812	1,727,447	152,775	14,009,429

Mother tongues spoken are dealt with in Table 24, which shows that 1,659,770 persons had neither English nor French as mother tongue.

24.—Mother Tongues of the Population, 1951

NOTE.—Children under 5 years of age have been classed as speaking the language of the home.

Mother Tongue	Number	Percent- age of Total	Mother Tongue	Number	Percent- age of Total
English.....	8,280,809	59.11	Magyar.....	42,402	0.30
French.....	4,068,850	29.04	Netherlands.....	87,935	0.63
Chinese.....	28,289	0.20	Norwegian.....	43,831	0.31
Danish.....	15,714	0.11	Polish.....	129,238	0.92
Estonian.....	8,784	0.06	Roumanian.....	10,105	0.07
Finnish.....	31,771	0.23	Russian.....	39,223	0.28
Flemish.....	12,623	0.09	Serbo-Croatian.....	11,031	0.08
Gaelic.....	13,974	0.10	Slovak.....	45,516	0.32
German.....	329,302	2.35	Swedish.....	36,096	0.26
Greek.....	8,036	0.06	Syrian and Arabic.....	5,475	0.04
Icelandic.....	11,207	0.08	Ukrainian.....	352,323	2.51
Indian and Eskimo.....	144,787	1.03	Yiddish.....	103,593	0.74
Italian.....	92,244	0.66	Other.....	19,356	0.14
Japanese.....	17,589	0.12			
Lettish.....	7,019	0.05	Totals.....	14,009,429	100.00
Lithuanian.....	12,307	0.09			

Section 12.—School Attendance

Years of schooling is defined as the total number of years a person attended any kind of educational institution beyond kindergarten. Persons engaged in private study or part-time attendance at classes are credited with the number of years of formal schooling to which this is equivalent. Table 25 shows the number of persons 5 years of age or over attending school by years of schooling, by provinces and the Territories, while Table 26 shows this information for persons not attending school. To be considered as attending school, a person must have had some regular daytime attendance at some type of formal school or university between September 1950 and June 1951.

25.—Population 5-24 Years of Age or Over Attending School, by Years of Schooling, by Provinces or Territories, 1951

Province or Territory	Population Attending School	Years of Schooling				
		1-4	5-8	9-12	13-16	17+
	No.	No.	No.	No.	No.	No.
Newfoundland.....	76,979	41,426	26,506	8,445	535	67
Prince Edward Island.....	19,714	9,013	7,521	2,807	336	37
Nova Scotia.....	132,127	63,689	46,376	19,298	2,281	483
New Brunswick.....	103,800	50,029	37,931	14,102	1,473	265
Quebec.....	725,882	372,988	251,387	79,727	15,997	5,783
Ontario.....	751,399	330,828	256,831	127,611	28,160	7,969
Manitoba.....	134,998	61,751	46,863	22,116	3,519	749
Saskatchewan.....	162,238	69,608	59,573	29,387	3,152	518
Alberta.....	175,809	76,113	61,386	33,372	4,157	781
British Columbia.....	183,871	80,329	61,225	34,275	6,392	1,650
Yukon Territory.....	1,107	645	279	127	46	10
Northwest Territories.....	957	684	182	55	25	11
Canada.....	2,468,881	1,157,103	856,060	371,322	66,073	18,323

26.—Population 5 Years of Age or Over Not Attending School, by Years of Schooling, by Provinces or Territories, 1951

Province or Territory	Population not Attending School	Years of Schooling					
		None	1-4	5-8	9-12	13-16	17+
	No.	No.	No.	No.	No.	No.	No.
Newfoundland.....	225,606	34,413	43,466	86,983	55,598	4,195	951
Prince Edward Island.....	65,502	3,647	3,682	30,288	25,183	2,199	503
Nova Scotia.....	427,917	24,137	33,549	167,145	179,001	19,056	5,029
New Brunswick.....	337,028	31,556	37,982	150,186	103,849	10,775	2,680
Quebec.....	2,788,275	202,301	243,469	1,393,873	793,646	110,775	44,211
Ontario.....	3,331,421	157,522	155,167	1,378,881	1,274,945	284,349	80,557
Manitoba.....	551,566	44,067	46,995	214,303	214,509	25,480	6,212
Saskatchewan.....	569,635	49,106	49,190	246,579	190,667	29,049	5,044
Alberta.....	646,846	49,619	43,576	235,898	268,687	41,057	8,009
British Columbia.....	855,453	48,772	41,525	279,010	402,583	66,566	16,997
Yukon Territory.....	6,670	952	469	1,751	2,916	486	96
Northwest Territories.....	12,520	7,404	1,285	1,405	1,840	415	171
Canada.....	9,818,439	653,496	700,355	4,186,302	3,513,424	594,402	170,460

Section 13.—Occupations

Information under this heading from the 1951 Census was not available at the time of preparation of this Chapter but may be found in the regular series of census bulletins. Summary tables showing the occupations of the Canadian people as at the date of the 1941 Census are given in the Year Book 1943-44, pp. 1062-1073, and in the Year Book 1948-49, pp. 160-161.

Section 14.—Dwellings, Households and Families

Statistics on dwellings, households and families, derived from the 1951 Census returns, are shown in Table 27; the figures are exclusive of the Yukon and Northwest Territories. Additional information on these subjects, which was not available at the time of preparation of this Chapter, may be found in the regular series of census bulletins.

The definitions on which the figures of Table 27 are based are as follows:—

Dwelling.—A structurally separate set of living premises with private entrance from outside the building or from a common hallway or stairway inside. The entrance must not be through another person's living quarters. Each single house, each apartment or suite in an apartment house, duplex, triplex or structurally connected single house; each flat in a building containing flats; each half of a double house; and each section of a row or terrace counts as one dwelling unit. Other structures such as summer cottages, automobile trailers, tents, cabins, railway cars, houseboats, etc., are also counted as dwelling units if they are occupied by persons who have no other usual residence.

Household.—A person or a group of persons occupying one dwelling unit. Every individual is a member of some household. The number of households will be equal to the number of occupied dwellings. A household usually consists of a family group with or without servants, lodgers, etc. However, it may consist of a group of unrelated persons sharing a dwelling, or one person living alone.

Family.—A husband and wife (with or without children) or a parent and unmarried child (or children including guardianship children under 21 years of age and single) living together in the same dwelling.

27.—Dwellings, Households and Families, and Persons per Household and Family, by Provinces and Cities of 30,000 Population or Over, 1951

Province and City	Population	Dwellings		Families	Persons per Household ²	Persons per Family
		Total ¹	Occupied ²			
Newfoundland.....	361,416	78,024	70,980	74,858	5.0	4.4
St. John's.....	52,873	11,009	10,572	11,427	4.8	4.0
Prince Edward Island.....	98,429	24,114	22,454	21,381	4.3	4.0
Nova Scotia.....	642,584	159,795	149,555	145,127	4.2	3.9
Halifax.....	85,589	19,250	18,709	19,016	4.1	3.5
Sydney.....	31,317	6,545	6,324	7,080	4.8	3.9
New Brunswick.....	515,697	120,639	114,007	111,639	4.4	4.1
Saint John.....	50,779	13,531	13,178	12,224	3.8	3.5
Quebec.....	4,055,681	898,914	858,784	856,041	4.6	4.2
Hull.....	43,483	9,562	9,324	9,916	4.6	4.0
Montreal.....	1,021,520	257,253	247,482	246,389	4.0	3.5
Outremont.....	30,057	7,559	7,419	7,329	3.9	3.4

For footnotes, see end of table.

27.—Dwellings, Households and Families, and Persons per Household and Family, by Provinces and Cities of 30,000 Population or Over, 1951—concluded

Province or City	Population	Dwellings		Families	Persons per House- hold ²	Persons per Family
		Total ¹	Occupied ²			
Quebec—concl.						
Quebec.....	164,016	36,268	34,970	33,830	4.4	4.1
Sherbrooke.....	50,543	11,922	11,543	11,034	4.1	3.9
Three Rivers.....	46,074	9,848	9,528	9,466	4.6	4.3
Verdun.....	77,391	20,216	19,806	20,123	3.8	3.4
Ontario.....						
Brantford.....	4,597,542	1,232,081	1,181,126	1,162,772	3.8	3.4
Fort William.....	36,727	10,551	10,373	9,774	3.5	3.2
Hamilton.....	34,947	9,485	9,297	9,015	3.7	3.4
Kingston.....	208,321	56,595	55,337	55,764	3.7	3.2
Kitchener.....	33,459	8,939	8,708	8,485	3.7	3.2
London.....	44,867	11,904	11,571	11,832	3.8	3.2
Oshawa.....	95,343	27,200	26,384	24,679	3.5	3.1
Ottawa.....	41,545	11,680	11,225	11,170	3.7	3.2
Peterborough.....	202,045	50,691	48,968	48,811	3.9	3.4
Port Arthur.....	38,272	10,343	10,018	9,807	3.8	3.4
St. Catharines.....	31,161	8,672	8,426	8,082	3.6	3.4
Sarnia.....	37,984	10,575	10,383	10,051	3.6	3.3
Sault Ste. Marie.....	34,697	9,841	9,380	8,953	3.7	3.4
Sudbury.....	32,452	8,088	7,856	8,124	4.1	3.5
Toronto.....	42,410	9,670	9,452	9,978	4.4	3.7
Windsor.....	675,754	159,985	157,174	177,984	4.2	3.0
Windsor.....	120,049	32,329	31,813	30,855	3.7	3.4
Manitoba.....						
Winnipeg.....	776,541	210,565	202,398	191,268	3.7	3.6
Winnipeg.....	235,710	66,434	64,629	63,117	3.6	3.1
Saskatchewan.....						
Regina.....	831,728	237,406	221,456	196,188	3.7	3.7
Regina.....	71,319	19,805	19,161	18,229	3.6	3.3
Saskatoon.....	53,268	15,667	14,982	13,639	3.4	3.3
Alberta.....						
Calgary.....	939,501	266,939	250,747	223,326	3.6	3.7
Calgary.....	129,060	39,590	37,711	34,053	3.3	3.2
Edmonton.....	159,631	45,847	42,922	40,278	3.6	3.3
British Columbia.....						
Vancouver.....	1,165,210	356,651	337,777	299,845	3.3	3.3
Vancouver.....	344,833	105,167	101,330	92,798	3.3	3.0
Victoria.....	51,331	16,454	15,788	13,632	3.1	3.0
Canada.....	14,009,429 ²	3,585,128	3,409,284	3,287,384 ¹	4.0	3.7 ²

¹ Includes institutions, hotels and camps, as well as vacant dwellings and dwellings under construction.

² Excludes institutions, hotels and camps.

² Includes the Yukon and Northwest Territories.

Section 15.—The Blind and Deaf Population

Information under this heading from the 1951 Census was not available at the time of preparation of this Chapter. Statistics from the 1941 Census are given in the Year Book 1945, p. 126, and in greater detail in Vol. IV of the 1941 Census.

Section 16.—Census of the Prairie Provinces

The Census and Statistics Act of 1905 and the Statistics Act of 1918 (replaced by the Statistics Act, 1948) provided for a census of population and agriculture for the Provinces of Manitoba, Saskatchewan and Alberta, to be taken in 1906 and every tenth year thereafter, in addition to the nation-wide decennial census.

The latest Prairie Province Census was taken as of June 1, 1946, and the results are summarized in the Year Book 1948-49, pp. 162-171, and in the Year Book 1951, pp. 130-132. More detailed information may be obtained in the census volumes of the 1946 Census of the Prairie Provinces.

Section 17.—The Indians and Eskimos of Canada

The Indians.*—The Indians of Canada are not one race, but are divided into a number of basic linguistic stocks or language groups which are, in turn, subdivided into tribal groups with many local dialects. There are ten linguistic groups, of which four are found east of the Rocky Mountains—Algonkian, Athapaskan, Iroquoian and Siouan—and six are found west of the Rockies—Kootenayan, Salishan, Wakashan, Tsimshian, Haida and Tlinkit. They are subdivided further into many tribes with widely differing physical and psychological characteristics and cultures. The Indians of Algonkian stock are the most numerous. They are scattered throughout the area from the Atlantic Ocean to the Rocky Mountains and include such tribes as the Micmacs of Prince Edward Island, Nova Scotia and New Brunswick, the Montagnais of Quebec, and the Ojibwas, Crees and Blackfeet. Iroquoian stock, including the Hurons, are found mainly in Ontario and Quebec. Athapaskan stock inhabit the Northwest and Yukon Territories, while tribes of Sioux are located in Manitoba, Saskatchewan and Alberta.

In all there are more than 136,000 Indians in Canada, divided into about 600 bands. Reserves, or lands set aside for the use of these Indian bands, number more than 2,000, varying in size from a few acres to 500 sq.miles.

The Indians have long been regarded as a separate and special responsibility of the Government and their administration is now under the jurisdiction of the Indian Affairs Branch of the Department of Citizenship and Immigration, except for medical and health services which are provided by the Department of National Health and Welfare. The primary function of Indian administration has always been to conduct Indian affairs in such a manner as to enable them to become increasingly self-supporting and independent. The legislation in effect up to September 1951 covered management of Indian lands and reserves, trust funds, welfare projects, relief, family allowances, education, descent of property, rehabilitation of Indian veterans on reserves, Indian treaty obligations, enfranchisement of Indians and a variety of other matters. A complete examination of Indian affairs was conducted by a special Joint Committee of the Senate and House of Commons during the Parliamentary Sessions of 1946, 1947 and 1948, and, as a result, the previous legislation under which Indian affairs were administered was repealed and a new Act (15 Geo. VI, c. 29) brought into force on Sept. 4, 1951. This constituted the first complete revision of Indian legislation since 1880.

The New Indian Act.—The new Act is designed to bring the Indians, by progressive steps, into a position of social, political and economic equality with other Canadians by giving them greater powers over their own lands and funds and by decreasing the powers held by the Government.

Under the old Act, for instance, the Crown could grant timber-cutting rights on Indian reserves and lease unused lands without the consent of the Indian owners. Such transactions now require the approval of the band concerned. Similarly,

* Prepared under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration. This material brings up to date the more detailed review given in the 1951 Year Book, pp. 1125-1133.

expenditures from Indian trust funds must now, with few exceptions such as assistance for indigents, be authorized by the band council concerned. A band may now be given complete control over its own lands and band revenue money. Also when an individual Indian leases land to another party the lease money may now be paid locally. Heretofore, under the Consolidated Revenue and Audit Act, it was necessary for the money to be sent first to Ottawa.

The system of elections for band councils, which correspond in a general way to the councils in a rural municipality, has been modernized. Under the old Act only males 21 years of age or over were allowed to vote in band elections. Under the new Act the vote has been extended to women in elections and in all matters in which a vote of the band is required.

The right of appeal to the civil courts in registration of band membership matters is provided for. A similar right is also provided in connection with the estates of deceased Indians administered by the Minister, when the amount involved exceeds \$500.

Revolving Fund loans which formerly assisted Indians in the purchase of farming and fishing equipment, seed grain, live stock and similar essentials, may now be granted also for the purchase of farm vehicles, fencing materials, gas and oil, and repairs and wages.

Restrictions on trade with Indians in the Prairie Provinces have been modified. The requirement for departmental consent to such transactions hitherto necessary may now be removed from any band or individual Indian. In this and various other ways the rights and liberties of the Indians have been extended.

Changes have also been made in regard to education and, while the school system on the reserves will not be changed and the present residential school arrangements will continue, provision is made for the children of Indians living off reserves. Special schools may be established in some cases and, in addition, agreements may be entered into with provincial authorities, local school boards and other bodies for the education of Indian children in association with other Canadian children.

As in the old Act, provision is made for the enfranchisement of Indians—either by entire bands or as individuals—the effect of which is to remove all legal distinctions between such Indians and other members of the community. Enfranchised Indians, accordingly, are no longer subject to the provisions of the Indian Act. A provision has been included permitting the Department to make arrangements with a province or municipality to provide financial assistance to support indigent, infirm or aged persons of an enfranchised band.

Indian Welfare.—The extension of the provisions of the Old Age Security Act to all Indians 70 years of age or over was the most important welfare development during 1951. Formerly, Indians 70 years of age or over were paid, subject to a means test, the sum of \$25 per month which was provided for in welfare appropriations of the Indian Affairs Branch. Also during 1951 the registration was undertaken of needy Indians in the 65-69 age group for benefits under the Old Age Assistance Act.

Other significant steps in Indian welfare included the liberalization of the basic scale of foods issued to destitute Indians, and the appointment of three additional social workers for duty on Indian reserves. These workers, who provide leadership in community activities among Indians, are at work in almost all reserves. The Indian Affairs Branch also continued its policy of improving existing Indian dwellings and constructing new homes on reserves.

Indian Education.—There was a total enrolment of 24,871 pupils in Indian day schools and residential schools during the 1950-51 school year. In addition, 1,468 children attended elementary grades in provincial and private schools and 564 pupils were enrolled in secondary grades and special courses in these institutions. It is significant to note that over a ten-year period the total enrolment at day and residential schools rose from 17,425 to the 1950-51 figure of 24,871, and that during that same period the percentage of attendance climbed from 82.4 to 89.7. These increases are attributed not only to the continuing construction of schools where necessary but also to the growing recognition by the Indians of the desirability of education and to the improvements in the standards of teachers and of schools and equipment.

Fur Conservation.—The fur rehabilitation work carried on in co-operation with the various provinces is continuing. Indians are adopting in increasing measure the conservation and management techniques necessary to restore this basic industry, on which more than one-half of the total Indian population still depends for subsistence.

Beaver production figures have risen steadily in areas in Manitoba, Saskatchewan and Ontario under management by virtue of formal agreements now in effect. For example, the beaver crop in Manitoba rose from 3,379 in 1945 to 14,439 in 1950; in Saskatchewan, from 1,646 in 1947 to 10,495 in 1950; and in Ontario, from 47,276 in 1947 to 73,759 in 1950. Numbers of beavers, as well as the pelts taken, have continued to increase on the areas set aside by the Province of Quebec for the exclusive use of Indians.

Six full-time fur supervisors are now employed across Canada to assist the Indians to derive the fullest possible benefits from trapping operations.

Indian Trust Fund.—The credit balance of the Indian trust fund as at Mar. 31, 1951, was \$20,232,930, made up of \$15,103,948 in capital account and \$5,128,982 in revenue account which, at the end of the year, showed increased balances of \$270,149 and \$818,951, respectively. Interest paid by the Government on the trust fund amounted to \$956,512. Other major items of income to the fund included land leases, \$473,779; timber, \$492,559; oil exploration rights, \$758,559; and land sales, \$97,973. The total expenditure from the trust fund in the year ended Mar. 31, 1951, was \$2,764,222, chiefly for agricultural assistance, relief, distributions of cash in accordance with the provisions of land surrenders, housing construction and improvements, road building, and loans to Indians.

Statistics.—The Indian Affairs Branch takes a census of the Indians at five-year intervals. The figures in the following tables are the latest available. At the time of the preparation of this material, information regarding the Indian population collected at the 1951 Decennial Census was not yet ready for publication.

28.—Indian Population, Classified by Age Groups and Sex, by Provinces or Territories, Departmental Census, 1949

Province or Territory	Under 7 Years		7 and Under 16		16 and Under 21		21 and Under 70		70 or Over		Totals	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	24	20	33	33	16	9	68	58	6	6	147	126
Nova Scotia.....	273	243	292	302	123	132	635	544	50	47	1,373	1,268
New Brunswick.....	239	237	253	245	102	111	479	414	33	26	1,106	1,033
Quebec.....	1,587	1,642	1,611	1,655	844	839	3,832	3,407	293	260	8,167	7,803
Ontario.....	3,348	3,352	3,330	3,349	1,761	1,747	8,232	8,005	713	720	17,434	17,173
Manitoba.....	2,022	1,991	1,956	2,021	940	830	3,815	3,340	293	305	9,026	8,487
Saskatchewan.....	1,853	1,869	1,795	1,866	854	811	3,416	3,347	246	251	8,164	8,144
Alberta.....	1,698	1,724	1,639	1,591	700	692	2,892	2,579	206	270	7,135	6,856
British Columbia.....	3,147	3,144	3,003	3,149	1,423	1,412	6,332	5,245	550	531	14,455	13,481
Yukon Territory.....	158	171	147	163	67	73	333	286	25	20	730	713
Northwest Territories.....	379	322	362	372	182	164	875	804	58	68	1,856	1,730
Totals.....	14,728	14,715	14,421	14,746	7,012	6,820	30,959	28,029	2,473	2,504	69,593	66,814

29.—Religious Denominations of the Indian Population, Departmental Census, 1949

Province or Territory	Anglican	Baptist	United Church	Presbyterian	Roman Catholic	Other Christian Beliefs	Aboriginal Beliefs	Totals
	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	—	—	—	—	273	—	—	273
Nova Scotia.....	—	—	—	—	2,641	—	—	2,641
New Brunswick.....	—	—	—	—	2,139	—	—	2,139
Quebec.....	3,100	—	451	—	12,120	152	147	15,970
Ontario.....	10,940	1,514	6,025	611	12,065	1,146	2,306	34,607
Manitoba.....	5,735	12	4,694	804	6,091	82	95	17,513
Saskatchewan.....	4,980	—	1,682	184	8,402	25	1,035	16,308
Alberta.....	1,963	127	1,708	—	9,954	—	239	13,991
British Columbia.....	5,561	—	5,623	—	15,977	775	—	27,936
Yukon Territory.....	1,191	—	—	—	210	18	24	1,443
Northwest Territories.....	668	—	—	—	2,918	—	—	3,586
Totals.....	34,138	1,653	20,183	1,599	72,790	2,198	3,846	136,407

30.—Indian Lands and Property, by Classes and Provinces or Territories, 1950

Province or Territory	Land				Property			
	Uncleared and Uncultivated	Cleared but not Cultivated	Under Cultivation	Total Area of Reserves ¹	Private Houses	Churches	Council Houses	Saw-mills
	acres	acres	acres	acres	No.	No.	No.	No.
Prince Edward Island.....	1,721	820	200	2,741	48	1	1	—
Nova Scotia.....	22,924	1,235	636	19,498	491	10	1	2
New Brunswick.....	33,602	1,167	294	37,727	395	6	4	1
Quebec.....	138,799	11,597	4,487	179,619	2,007	22	4	1
Ontario.....	1,198,900	107,957	33,427	1,560,221	5,383	115	48	25
Manitoba.....	308,909	161,821	20,040	525,299	3,415	68	11	10
Saskatchewan.....	496,961	623,918	116,868	1,203,293	3,044	58	15	2
Alberta.....	565,373	772,351	136,060	1,516,796	2,914	34	13	4
British Columbia.....	437,063	240,028	42,169	816,549	6,945	169	89	14
Northwest and Yukon Territories.....	3,537	41	20	5,620	323	2	1	—
Totals.....	3,207,789	1,920,925	354,201	5,867,363	24,965	485	187	59

¹ Includes areas under water and waste land.

31.—Live Stock Owned by Indians, by Provinces or Territories, 1950

Province or Territory	Horses			Cattle			
	Stallions	Geldings and Mares	Foals	Bulls	Steers	Milch Cows	Young Stock
	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	—	11	1	1	8	15	14
Nova Scotia.....	1	44	1	3	—	58	33
New Brunswick.....	—	25	—	—	—	5	2
Quebec.....	2	375	45	29	61	890	438
Ontario.....	24	2,257	143	89	529	3,022	1,881
Manitoba.....	—	2,226	47	28	185	796	538
Saskatchewan.....	4	5,592	142	59	782	1,900	1,449
Alberta.....	167	8,256	899	243	1,697	7,522	4,719
British Columbia.....	104	5,714	570	227	2,463	7,112	4,452
Northwest and Yukon Territories.....	2	25	—	—	—	—	—
Totals.....	304	24,525	1,848	679	5,725	21,320	13,526

The Eskimos.—The Eskimos of Canada are located principally north of the tree-line along the northern fringes of the mainland and around the coasts of the islands in the Arctic Archipelago and in Hudson Bay. Most of them are coastal dwellers obtaining much of their food, fuel and clothing from the mammals of the sea. There are, however, small bands living in the interior of the Districts of Keewatin and Mackenzie who depend almost wholly on caribou and fish.

The economy of these nomadic people is based on their hunting, fishing and trapping. From their hunting and fishing they obtain the essentials of food, fuel, clothing and shelter, while trapping produces furs to trade for the white man's goods. Variations in the availability of game and furs and wide fluctuations in the prices of furs from year to year add to the precariousness of the Eskimo's life in these Arctic regions.

The 1951 Census established the Eskimo population at 9,733, of whom 6,822 were located in the Northwest Territories, 1,958 in northern Quebec and 769 in Newfoundland and Labrador.

The administration of Eskimo affairs comes under the Department of Resources and Development whose aim it is to assist these people in adjusting themselves to changes being brought about by advancing civilization and ultimately to develop to a point where they can assume the full rights and responsibilities of citizenship.

The question of the ability of wildlife resources to support the native population is becoming acute. To conserve the natural resources necessary for the subsistence of the Eskimos, the Administration has introduced game preserves where only natives may hunt and trap. Game regulations provide for the efficient use of wildlife, and the Royal Canadian Mounted Police encourage hunting practices which will conserve the supply of game both on land and in the sea. The Federal Government, for a number of years, has operated a reindeer project near Aklavik, which was undertaken primarily as a possible means of improving the economic condition of the Eskimos. Research is going on to determine the suitability of other areas for reindeer culture and to determine the possibility of developing other resources such as fisheries. Eskimo handicraft is being encouraged by the Canadian Handicrafts Guild assisted by a grant from the Federal Government. Eskimos have produced carvings in soapstone, ivory and wood, and articles made of various skins and furs. Sales have been successful.

Social services available to the citizens of Canada in general are being extended to the Eskimos as rapidly as possible, care being taken that these services are extended in a manner and form conducive to the best interests of the native. Family allowances to Eskimos are issued in the form of goods, and allowances to aged Eskimos have also been authorized.

Medical care and hospitalization of Eskimos is a function of the Department of National Health and Welfare. Mission hospitals, maintained with Government assistance, are located at Aklavik, Chesterfield Inlet and Pangnirtung. At these points the Department of National Health and Welfare also maintains medical health officers who are responsible for the surrounding areas. Government nursing stations or health centres have been established at Coppermine, Coral Harbour, Cape Dorset and Lake Harbour in the Northwest Territories and at Fort Chimo and Port Harrison in Arctic Quebec.

The nomadic life of the Eskimo people places considerable difficulty in the way of formal education. For many years the missionaries have carried on some formal education assisted by Federal Government grants. Government schools have now been established at Aklavik, Tuktoyaktuk, Coppermine, Chesterfield Inlet, Coral Harbour, Cape Dorset, Port Harrison and Fort Chimo, and attention is being directed to the devising of a suitable educational program for the Eskimos.

The Royal Canadian Mounted Police detachments maintain close contact with the Eskimos throughout the Far North and act as local representatives of the Administration in all matters affecting Eskimo welfare. Administrative contact is also maintained by radio and through the Eastern Arctic Patrol, which carries representatives of the Administration and of other government departments on an annual inspection of conditions in the Eastern Arctic. Officers of the Administration also visit Arctic posts periodically by aircraft.

Section 18.—Statistics of World Population

Population for each country or area of the world, according to the latest census and latest official estimate, is given in the Year Book 1950, pp. 176-180. The following table gives areas and estimates of populations of the Commonwealth, by continents and countries.

32.—Areas and Populations of the Commonwealth, by Continents and Countries, 1950

NOTE.—The figures in this table are from the *United Nations Demographic Yearbook, 1951*. Populations are mid-year estimates for 1950.

Continent	Area	Population, 1950	Continent and Country	Area	Population, 1950
	sq. miles	'000		sq. miles	'000
Summary by Continents			Europe		
Europe.....	94,629	51,111	Self - Governing Territories—		
Africa.....	4,301,674	81,674	United Kingdom—		
Asia.....	2,112,566	469,857	England and Wales.....	58,341	44,020
North America (including West Indies).....	3,867,160	16,536	Northern Ireland.....	5,459	1,377
South America.....	89,065	422	Scotland.....	30,409	5,219
Oceania.....	4,194,872	12,172	Non - Self - Governing Territories and Dependencies—		
Totals.....	14,659,966	631,772	Channel Islands.....	75	103
			Gibraltar.....	2	25 ¹
			Isle of Man.....	221	54
			Malta and Gozo.....	122	313 ¹

For footnotes, see end of table, p. 162.

32.—Areas and Populations of the Commonwealth, by Continents and Countries, 1950—concluded

Continent and Country	Area	Population, 1950	Continent and Country	Area	Population, 1950
	sq. miles	'000		sq. miles	'000
Africa			North America		
Self - Governing Territories—			Self - Governing Territory—		
Union of South Africa....	472,475	12,320	Canada.....	3,845,774	13,712
Non - Self - Governing Territories and Depend- encies—			Non - Self - Governing Ter- ritories and Depend- encies—		
Basutoland.....	11,715	574	Bermudas.....	21	37 ¹
Bechuanaland.....	274,980	289	British Honduras.....	8,867	67
Gambia (colony and pro- tectorate).....	4,068	273	British West Indies—		
Gold Coast (colony and protectorate).....	78,799	3,869	Bahama Islands.....	4,403	79
Kenya (colony and pro- tectorate).....	224,951	5,555	Barbados.....	166	209
Mauritius and depend- encies.....	809	480	Jamaica.....	4,411	1,403
Nigeria (colony and pro- tectorate).....	338,580	24,000	Cayman Islands.....	93	7
Northern Rhodesia.....	290,312	1,866	Turks and Caicos Is- lands.....	202	7
Nyasaland.....	47,402	2,330	Leeward Islands (incl. Antigua, Montserrat, St. Kitts - Nevis - An- guilla and Virgin Is- lands (U.K.).....	422	112
St. Helena (including Ascension).....	81	5	Trinidad and Tobago.....	1,980	627
Seychelles (colony and dependencies).....	156	36	Windward Islands (incl. Dominica, Grenada, St. Lucia and St. Vincent).....	821	274
Sierra Leone (colony and protectorate).....	27,924	1,880			
Somaliland Protectorate.....	67,997	500	South America		
Southern Rhodesia.....	150,327	2,085	Non - Self - Governing Ter- ritories and Depend- encies—		
Swaziland.....	6,704	197	British Guiana.....	82,997	420
Uganda.....	93,977	5,125	Falkland Islands and de- pendency.....	6,068	2
Zanzibar and Pemba.....	1,020	269			
Trust Territories—			Oceania		
Cameroons (U.K.).....	34,080	1,000	Self - Governing Terri- tories—		
Tanganyika (U.K.).....	362,674	7,707	Australia.....	2,974,463	8,186 ⁵
Togoland (U.K.).....	13,041	397	New Zealand.....	103,412	1,920
Former Mandated Terri- tory—			Non - Self - Governing Ter- ritories and Depend- encies—		
South-West Africa.....	317,712	379	Norfolk (Australia).....	14	1
Military Government—			Papua (Australia).....	90,537	369
Eritrea (U.K.).....	47,876	1,104	British Solomon Islands (U.K.).....	11,699	100
Libya ²	466,563	1,074	Fiji Islands (U.K.).....	7,040	289
Condominium—			Gilbert and Ellice (U.K.) ⁶	375	38
Anglo-Egyptian Sudan....	967,451	8,350	Pitcairn.....	2	7
Asia			Tonga (U.K.).....	269	47
Self - Governing Terri- tories—			Campbell, Cook, Kerma- dec, Niue and Tokelau Islands (New Zealand).....	260	20
Burma.....	261,600	18,489	Trust Territories—		
Ceylon.....	25,331	7,550	Nauru (Australia, New Zealand and U.K.).....	8	3
India (Republic of) ³	1,221,023	353,000	New Guinea (Australia).....	999,960	1,071
Pakistan.....	365,893	75,040	Western Samoa (New Zealand).....	1,133	79
Non - Self - Governing Ter- ritories and Depend- encies—			Condominium—		
Aden Colony.....	80	100	New Hebrides (Anglo- French).....	5,700	49
Aden Protectorate.....	104,996	650			
British Borneo—					
North Borneo.....	29,386	348			
Brunei.....	2,226	46			
Sarawak.....	47,069	562			
Cyprus.....	3,572	481			
Hong Kong.....	391	2,260 ¹			
Malaya—					
Federation of Malaya....	50,598	5,227			
Colony of Singapore ⁴	286	1,018			
Maldiv Islands.....	115	83			

¹ Civilian population only.² Excludes Fezzan which is under French military occupation.³ Includes the Princely States of Hyderabad and Kashmir-Jammu.⁴ Includes Christmas Island and Cocos-Keeling Islands.⁵ Excluding full-blooded aborigines, estimated at 47,000 in 1944.⁶ Including Phoenix Island group.⁷ Estimated population 130 in 1950.

CHAPTER IV.—IMMIGRATION AND CITIZENSHIP

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—IMMIGRATION AND EMIGRATION

Section 1.—Immigration

Immigration to Canada since early times has been spasmodic, being high in periods of rapid development and prosperity and dropping off during wars and in periods of economic depression. A brief summary of the history of immigration is given in the Year Book 1948-49, pp. 172-173.

Subsection 1.—Immigration Policy and Administration*

Policy.—The present policy of the Federal Government is to foster the growth of the population of Canada by the encouragement of immigration and, by necessary legislation and vigorous administration, to ensure the careful selection and permanent settlement of such numbers of immigrants as can be absorbed advantageously in the national economy. In line with this policy, the regulations were amended on July 1, 1950, to include—in addition to certain British subjects, citizens of France, citizens of the United States, and non-immigrants who served in the Canadian Armed Forces—any European immigrant who complies with immigration regulations and can satisfy the Minister of Citizenship and Immigration that he is a suitable immigrant, having regard to the climatic, social, educational, industrial, labour or other conditions or requirements of Canada, and that he is not undesirable owing to his probable inability to become readily adapted and integrated into the life of a Canadian community and to assume the duties of Canadian citizenship within a reasonable time after his entry.

On Sept. 14, 1950, German nationals were removed from the enemy alien category and have since been admissible as immigrants on the same basis as other Europeans. Regulations governing Asian immigration were also widened. An Order in Council of Dec. 28, 1950, provided for the admission of husbands of Asian origin in addition to the wives of Canadian citizens legally admitted to and resident in Canada. The age limit for unmarried children was raised from 18 to 21 years.

* Revised in the Immigration Branch under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration.

In January 1951 an agreement was reached with the Government of India to permit the admission of 150 citizens annually. In addition, the wife, husband or unmarried children under 21 years of age of Canadian citizens of Indian origin legally admitted to and resident in Canada may be admitted. Subsequently, provision was made for the admission of 100 citizens of Pakistan and 50 citizens of Ceylon annually, with the same provisions obtaining in respect of members of the immediate family of persons of Pakistani or Ceylonese origin residing in Canada.

However, this widening of regulations was in itself insufficient to increase the flow of immigration. Several obstacles remained to be overcome, the more important being the shortage and high cost of ocean transportation, restrictions on the export of capital and the devaluation of foreign currencies. Measures were taken by the adoption of the Air Transportation Scheme and the Assisted Passage Loan Scheme to help overcome the transportation problem. Under the terms of the former Scheme, put into effect in December 1950, immigrants were enabled to utilize otherwise vacant seats on scheduled Trans-Canada Air Lines flights from the United Kingdom at a cost equivalent to tourist-class ocean passage, the balance of the regular air-passages fare being paid by the Federal Government. Up to Nov. 30, 1951, about 7,000 immigrants had been brought to Canada by this means.

The Assisted Passage Loan Scheme was put into effect on Feb. 1, 1951, for the purpose of assisting immigrants from Europe whose services were urgently required in Canada and who were unable to finance transportation costs. Single persons and heads of families were allowed interest-free loans of part of the cost of ocean transportation and inland rail fare, including meals *en route*, to destination in Canada. Repayment was required within a maximum period of 24 months after arrival in Canada. Up to Oct. 31, 1951, when the plan was suspended, a total of 9,870 workers had been brought to Canada under this arrangement.

In addition to these measures, the Department of Citizenship and Immigration made a determined effort to have more shipping made available, increased the size of its overseas staff, added to its overseas offices, and made a large supply of informational material available to prospective immigrants.

The success of these efforts to stimulate immigration is evidenced by the fact that during the year 1951 a total of 194,391 immigrants entered Canada as compared with 73,912 in the previous year.

Administration.—The responsibility for all immigration matters under the provisions of the Immigration Act rests with the Minister of Citizenship and Immigration. The Immigration Branch, one of the four branches comprising the Department of Citizenship and Immigration, administers this Act. Headquarters of the Immigration Branch is at Ottawa.

A primary objective of administration is to assist immigrants to become quickly and satisfactorily settled in the Canadian community. Through the work of the Settlement Service, the Immigration Branch and the Canadian Citizenship Branch of the Department of Citizenship and Immigration and the National Employment Service of the Department of Labour, the Federal Government continues its interest

in them. Liaison is maintained between the Federal Government and provincial authorities and private organizations with a view to co-ordinating the efforts in this field, filling gaps and eliminating duplication.

Immigration Operations.—Immigration services in Canada and overseas operate under the supervision of the Director of Immigration. In Canada there are five districts—Atlantic, Eastern, Central, Western and Pacific—each under the supervision of a Superintendent. There are 319 ports of entry along the Canadian-United States border and on the Atlantic and Pacific seaboards and the admissibility of every person who enters Canada is established by an Immigration Officer at one of these ports. At inland offices located at strategic points throughout the country applications for the admission of immigrants are investigated and deportation proceedings conducted.

Immigration offices in the United Kingdom are located at London, Liverpool, Glasgow and Belfast. To facilitate compliance with immigration medical requirements, approved British medical practitioners make it possible for British immigrants to undergo medical examination within a short distance of their place of residence. An immigration office is also located at Dublin, Ireland. Immigration offices are in operation at Paris, Brussels, The Hague, Stockholm, Berne, Rome, Athens, Oslo, Copenhagen, Helsinki, Hanover, Linz and Karlsruhe.

For the past twenty-five years, a system of preliminary examination of immigrants from Continental Europe has been in effect. This examination is intended to establish, before they embark, the admissibility of persons wishing to settle in Canada in order to avoid the hardship that would ensue from rejection at the Canadian port of entry and subsequent deportation.

Settlement Service.—Of increasing importance in the immigration program is the work of the Settlement Service, which has staffs in all provinces of Canada and in the British Isles. The Settlement Officers in Canada locate and develop opportunities for immigrants in accordance with the needs of the areas under their supervision, enlist the co-operation of provincial and municipal authorities, and advise voluntary organizations that take an active interest in the establishment of immigrants. It is the responsibility of Settlement Officers overseas to locate suitable immigrants to fill the needs ascertained and the opportunities developed by the Canadian section of the Settlement Service. A continuous two-way flow of up-to-date information exists between the officers of the Settlement Service in Canada and those overseas.

Subsection 2.—Immigration Statistics

Table 1 presents statistics of immigration to Canada from 1912 to 1951. Analyses showing place of last permanent residence, sex, age, marital status, birth-place, origin, nationality, destination and occupation for recent years are given in Tables 2 to 8.

1.—Immigrant Arrivals, 1912-51

NOTE.—Figures for 1852-93 are given at p. 153 of the 1942 Year Book and for 1894-1911 at p. 175 of the 1948-49 edition.

Year	Arrivals	Year	Arrivals	Year	Arrivals	Year	Arrivals	Year	Arrivals
	No.		No.		No.		No.		No.
1912....	375,756	1920.....	138,824	1928.....	166,783	1936.....	11,643	1944.....	12,801
1913....	400,870	1921.....	91,728	1929.....	164,993	1937.....	15,101	1945.....	22,722
1914....	150,484	1922.....	64,224	1930.....	104,806	1938.....	17,244	1946.....	71,719
1915....	36,665	1923.....	133,729	1931.....	27,530	1939.....	16,994	1947.....	64,127
1916....	55,914	1924.....	124,164	1932.....	20,591	1940.....	11,324	1948.....	125,414
1917....	72,910	1925.....	84,907	1933.....	14,382	1941.....	9,329	1949.....	95,217
1918....	41,845	1926.....	135,982	1934.....	12,476	1942.....	7,576	1950.....	73,912
1919....	107,698	1927.....	158,886	1935.....	11,277	1943.....	8,504	1951.....	194,391

2.—Immigrant Admissions, by Country of Last Permanent Residence, 1948-51

NOTE.—Comparable figures for 1946 and 1947 are given in the Year Book 1951, p. 143, and figures in less detail for 1939-45 in the Year Book 1950, p. 186.

Country	1948	1949	1950	1951
	No.	No.	No.	No.
British Isles—				
England.....	30,450	14,414	9,077	21,155
Scotland.....	9,886	4,826	2,802	8,885
Wales.....	683	339	164	365
Northern Ireland.....	1,576	1,058	626	1,154
Other Commonwealth.....	5,549	2,301	2,211	3,494
Totals, Commonwealth.....	48,144	23,038	14,880	35,053
Republic of Ireland.....	1,044	927	452	640
Continental Europe—				
Germany.....	2,475	2,941	3,815	29,196
Italy.....	3,204	7,728	8,993	23,426
Netherlands.....	6,997	6,828	7,169	19,266
Poland.....	27,741	20,091	9,747	14,245
France.....	1,326	1,163	1,399	8,279
Estonia.....	1,752	2,484	1,630	3,871
Czechoslovakia.....	1,898	2,815	1,698	3,385
Union of Soviet Socialist Republics.....	4,414	2,243	1,224	2,315
Latvia.....	2,987	2,711	1,629	2,300
Other European countries.....	14,997	12,733	10,610	39,107
United States ¹	7,393	7,756	7,821	7,755
Other countries.....	1,042	1,759	2,845	5,553
Totals, All Countries.....	125,414	95,217	73,912	194,391

¹ Includes U.S.A. citizens on permit but applying for permanent residence.

Sex, Age and Marital Status.—Of the total immigrants 18 years of age or over entering Canada in 1951, 64 p.c. were males. Before 1931, adult male immigrants normally exceeded females in number, but from 1931 to 1947 female immigrants outnumbered male immigrants almost consistently, particularly in 1945 and 1946 when the wives of Canadian service men were coming in. From 1947 to 1950 adult males again exceeded females by from 10 to 27 p.c. and in 1951 by 80 p.c.

Throughout the years the sex distribution of persons under 18 years of age has been fairly even. In 1951, of the 45,334 immigrants in this class, 39,474 or 87 p.c. were under 15 years of age.

Of the total male immigrants in 1951, 40 p.c. were married and 59 p.c. single, the remainder being widowed or divorced; the percentages for female immigrants were 50 and 44, respectively.

3.—Sex Distribution of Immigrants as Adult Males, Adult Females, and Children, 1942-51

NOTE.—Figures for 1930-41 are given at p. 183 of the 1946 Year Book.

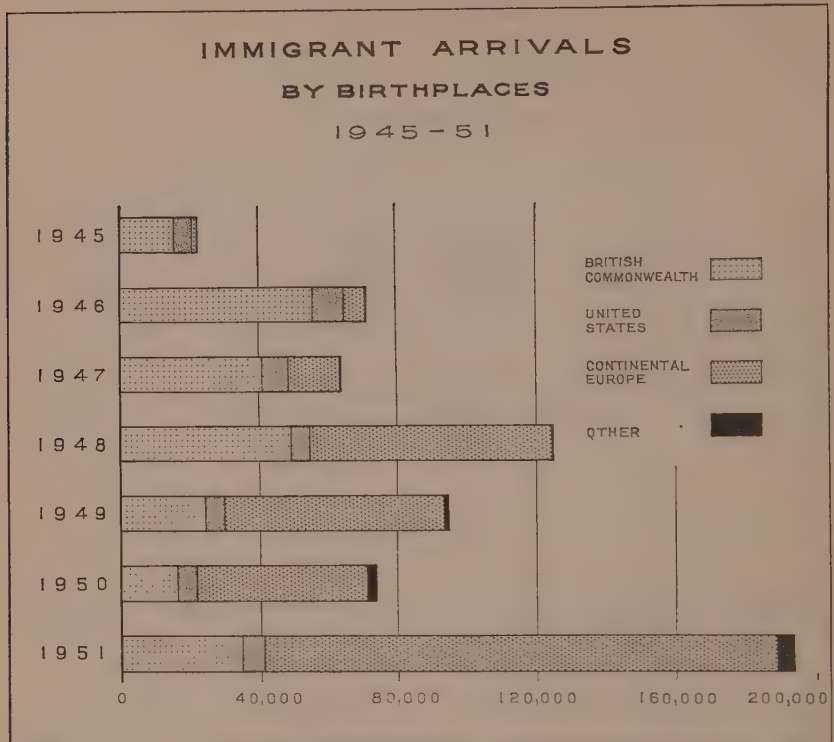
Year	Adult Males	Adult Females	Under 18 Years		Total
			Males	Females	
	No.	No.	No.	No.	No.
1942.....	2,280	3,429	928	939	7,576
1943.....	2,113	4,064	1,177	1,150	8,504
1944.....	2,391	6,253	2,103	2,054	12,801
1945.....	4,259	11,620	3,442	3,401	22,722
1946.....	9,934	40,818	10,549	10,418	71,719
1947.....	27,281	24,787	6,154	5,905	64,127
1948.....	52,986	45,191	14,104	13,133	125,414
1949.....	39,044	32,957	12,118	11,098	95,217
1950.....	30,700	24,172	10,287	8,753	73,912
1951.....	95,818	53,239	24,348	20,986	194,391

4.—Sex and Marital Status of Immigrant Arrivals, by Age Groups, 1950 and 1951

Year and Age Group	Males					Females				
	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1950										
0-14 years.....	8,421	—	—	—	8,421	7,668	—	—	—	7,668
15-19 ".....	3,520	24	—	—	3,544	1,872	276	2	2	2,152
20-24 ".....	5,054	858	3	4	5,919	1,979	2,277	9	23	4,288
25-29 ".....	3,981	3,067	13	48	7,109	1,364	3,534	62	71	5,031
30-39 ".....	2,369	5,824	66	93	8,352	1,001	4,302	226	162	5,691
40-49 ".....	608	3,917	115	91	4,731	537	2,987	419	163	4,106
50-59 ".....	114	1,593	89	35	1,831	237	1,365	623	106	2,331
60 years or over..	66	759	239	16	1,080	153	489	985	31	1,658
Totals, 1950....	24,133	16,042	525	287	40,987	14,811	15,230	2,326	558	32,925
1951										
0-14 years.....	20,700	—	—	—	20,700	18,774	—	—	—	18,774
15-19 ".....	8,793	52	—	3	8,848	8,818	600	1	1	4,420
20-24 ".....	18,991	3,098	1	29	22,119	4,204	5,875	18	46	10,143
25-29 ".....	12,792	10,799	31	138	23,760	2,764	9,652	82	174	12,672
30-39 ".....	7,045	19,556	156	410	27,167	1,900	11,766	367	397	14,430
40-49 ".....	1,712	10,711	220	272	12,915	735	6,271	658	346	8,010
50-59 ".....	231	2,862	167	61	3,321	283	2,229	933	145	3,590
60 years or over..	76	968	276	16	1,336	197	635	1,313	41	2,186
Totals, 1951....	70,340	48,046	851	929	120,166	32,675	37,028	3,372	1,150	74,225

Birthplace.—British-born immigrants to Canada in 1951 numbered 35,179 and made up 18 p.c. of the total immigration; the increase over 1950 amounted to 120 p.c. Immigrants born in Continental Europe totalled 148,480, which was an increase of 201 p.c. over the previous year. They accounted for 76 p.c. of the immigration compared with 67 p.c. in 1950. Of the 148,480, 16.3 p.c. were born in Germany, 16.0 p.c. in Italy, 12.6 p.c. in the Netherlands and 12.1 p.c. in Poland.

The number of United States-born immigrants in 1951 was about the same as in 1950, but accounted for only 3 p.c. of the total as compared with 8 p.c. in 1950.



5.—Birthplaces of Immigrant Arrivals, 1949-51

NOTE.—Figures for 1942-46 are given at p. 178 of the 1948-49 Year Book and those for 1947 and 1948 at p. 145 of the 1951 edition.

Country of Birth	1949	1950	1951	Country of Birth	1949	1950	1951
No.	No.	No.	No.	No.	No.	No.	No.
Commonwealth of Nations—				Continent of Africa			
British Isles—				(Other than British)....	118	104	234
England.....	13,317	8,419	18,723				
Northern Ireland.....	1,214	680	1,302	Continent of North America—			
Scotland.....	5,194	3,032	9,199	Central America.....	15	22	20
Wales.....	558	287	635	Mexico.....	20	16	38
Lesser Isles.....	62	38	99	United States.....	5,672	5,909	5,982
				Other.....	62	54	98
Other Commonwealth—				Continent of South America.....	207	254	350
Africa (British).....	112	93	196				
Australia.....	350	317	462	Continent of Asia—			
Canada.....	953	878	719	China.....	914	1,873	2,967
India.....	250	199	369	Japan.....	23	18	19
New Zealand.....	201	194	199	Other.....	175	214	714
West Indies (British)...	354	326	584				
Other.....	826	938	1,754				
Republic of Ireland.....	1,165	614	938				

5.—Birthplaces of Immigrant Arrivals, 1949-51—concluded

Country of Birth	1949	1950	1951	Country of Birth	1949	1950	1951
No.	No.	No.	No.	No.	No.	No.	No.
Continental Europe—				Continental Europe—			
Austria.....	1,329	754	4,091	concl.			
Belgium.....	803	706	4,235	Norway.....	355	237	925
Czechoslovakia.....	2,931	1,848	4,401	Poland.....	19,184	9,944	17,907
France.....	1,056	1,238	7,198	Roumania.....	1,437	1,212	2,930
Germany.....	3,762	3,918	24,257	Switzerland.....	356	482	1,337
Greece.....	709	828	2,758	Union of Soviet Socialist			
Hungary.....	2,187	1,947	5,099	Republics.....	3,401	2,043	4,489
Italy.....	7,702	9,004	23,806	Yugoslavia.....	2,163	1,558	5,651
Latvia.....	2,626	1,580	2,679	Other.....	4,610	3,932	16,417
Lithuania.....	2,016	973	1,519				
Netherlands.....	6,774	7,125	18,781	Grand Totals.....	95,217¹	73,912²	194,391³

¹ Includes 7 born at sea and 47 others not stated.² Includes 6 born at sea and 98 others not stated.³ Includes 8 born at sea and 302 others not stated.

Origin.—Of the 35,361 immigrants of British stock entering Canada in 1951, 60 p.c. were English, 28 p.c. Scottish, 10 p.c. Irish and 2 p.c. Welsh. Immigrants of Continental European stocks, who together numbered 155,597 and accounted for 80 p.c. of the total, were 21.4 p.c. German, 15.8 p.c. Italian, 12.5 p.c. Netherlands, 8.4 p.c. Polish, 4.6 p.c. Jewish, 4.5 p.c. French and 4.5 p.c. Ukrainian.

6.—Origins of Immigrant Arrivals, 1949-51

NOTE.—Figures for 1926-48 are given in the corresponding table of previous Year Books beginning with the 1939 edition.

Origin	1949	1950	1951	Origin	1949	1950	1951
No.	No.	No.	No.	No.	No.	No.	No.
British—				Continental European—			
English.....	16,116	11,068	21,348	concl.			
Irish.....	3,527	2,322	3,373	Scandinavian—concl.			
Scottish.....	6,180	3,928	10,002	Norwegian.....	451	341	1,036
Welsh.....	537	327	638	Swedish.....	309	281	949
Totals, British.....	26,360	17,645	35,361	Spanish ¹	84	85	701
Continental European—				Swiss ²	333	452	1,096
Albanian.....	57	30	56	Ukrainian.....	6,602	3,815	6,949
Belgian.....	741	472	2,655	Yugoslavia ¹	1,488	1,041	4,175
Bulgarian.....	78	85	362	Totals, Continental			
Czech.....	2,134 ¹	1,498	3,199	European.....	67,609	54,069	155,597
Estonian.....	2,952	1,961	4,599	Others—			
Finnish.....	267	504	4,158	Arabian.....	26	29	52
French.....	1,906	1,929	6,949	Armenian.....	10	37	86
German.....	6,721	6,642	33,234	Chinese.....	803	1,746	2,708
Greek.....	774	913	2,918	East Indian.....	53	77	99
Italian.....	7,936	9,246	24,532	Indian (American).....	34	17	26
Jewish.....	5,047	3,006	7,167	Japanese.....	13	13	3
Lettish.....	2,850	1,791	2,846	Mexican.....	2	4	17
Lithuanian.....	2,265	979	1,351	Negro.....	214	159	165
Magyar.....	1,655	1,645	4,421	Persian.....	2	2	7
Maltese.....	241	845	1,604	Syrian.....	90	104	229
Netherlands.....	8,012	7,635	19,405	Turkish.....	1	10	19
Polish.....	12,359	6,732	13,078	Not stated.....	—	—	22
Portuguese.....	68	104	166	Totals, Others.....	1,248	2,198	3,433
Roumanian.....	402	400	1,000	Grand Totals.....	95,217	73,912	194,391
Russian.....	937	653	2,305				
Scandinavian—							
Danish.....	922	967	4,663				
Icelandic.....	18	17	23				

¹ Includes a small number of minor groups.² Reported as "Swiss" origin but are evidently one of the constituent races such as German, French, Italian, etc.

Nationality.—The nationalities of immigrants entering Canada during the years 1949, 1950 and 1951 are shown in Table 7.

7.—Nationalities of Immigrant Arrivals, 1949-51

NOTE.—Figures for 1930-48 are given in the corresponding table of previous Year Books beginning with the 1936 edition.

Nationality	1949	1950	1951	Nationality	1949	1950	1951
	No.	No.	No.		No.	No.	No.
African (not British).....	19	35	42	Latvian.....	2,988	1,828	2,830
Albanian.....	52	32	58	Lithuanian.....	2,401	1,081	1,373
Argentinian.....	16	9	20	Mexican.....	17	6	30
Armenian.....	—	5	9	Netherland.....	6,819	7,211	19,137
Austrian.....	349	395	3,628	Norwegian.....	362	239	916
Belgian.....	765	669	3,086	Paraguayan.....	—	13	16
Brazilian.....	32	26	27	Persian.....	—	—	18
British.....	23,674	15,399	34,790	Peruvian.....	9	7	3
Bulgarian.....	81	95	395	Polish.....	22,913	12,075	20,408
Central American.....	10	14	16	Portuguese.....	5	11	42
Chilean.....	—	6	9	Roumanian.....	1,450	1,163	2,344
Chinese.....	734	1,731	2,689	Russian.....	2,569	1,515	3,744
Czechoslovakian.....	3,048	1,840	3,905	South American.....	20	17	40
Danish.....	864	905	4,666	Spanish.....	19	20	552
Ecuadorian.....	—	2	3	Swedish.....	153	155	796
Estonian.....	3,004	2,026	4,748	Swiss.....	339	475	1,267
Finnish.....	202	444	3,949	Syrian.....	68	98	263
French.....	993	1,209	6,811	Turkish.....	5	13	54
German.....	163	1,772	25,813	Ukrainian.....	143	120	705
Greek.....	722	845	2,802	United States.....	7,110	7,136	6,904
Hungarian.....	2,168	1,970	5,210	Uruguayan.....	—	2	5
Icelandic.....	7	9	17	Venezuelan.....	—	8	9
Irish Republican.....	803	425	669	West Indian (not British)	10	18	48
Israelite.....	47	103	333	Yugoslavic.....	2,322	1,702	5,573
Italian.....	7,651	8,839	23,432	Others.....	67	82	183
Japanese.....	24	12	4	Totals.....	95,217	73,912	194,391

Intended Destination and Occupation.—Experience has shown that not all immigrants reach the province of intended destination or follow intended occupation. Table 8 gives intended destination and occupation as stated by the immigrants entering Canada in 1951. Of the total immigrants, 41 p.c. were dependent wives and children, 13 p.c. were classed as farm workers, 17 p.c. as skilled workers and 16 p.c. as unskilled workers, while 6 p.c. were in the clerical, professional and merchant classes.

Of the total female immigrants, aside from dependent wives and children who accounted for 75 p.c., the largest number in any one occupational class were listed as domestic servants followed by the clerical and professional classes. Only 2 p.c. were classed as skilled workers.

8.—Intended Destinations and Occupations of Immigrants Entering Canada in 1951

Intended Occupation	Intended Destination												Canada																				
	Nfld.		P.E.I.		N.S.		N.B.		Que.		Ont.				Man.		Sask.		Alta.		B.C.		Yukon and N.W.T.										
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals									
Farming class.....	2	—	91	1	277	4	266	6	4,868	37,13,038	223	1,660	52	1,145	38	2,429	200	1,516	36	1	—	25,293	597	25,890	3,182	2,135	5,317	—	—	—	—	—	—
Clerical class.....	11	—	—	1	37	19	15	14	980	530	1,690	86	37	21	20	107	90	234	205	1	—	3,182	2,135	5,317	—	—	—	—	—	—	—	—	
Professional class.....	31	19	—	6	1	62	25	35	16	881	1,267	531	91	43	85	29	199	47	226	127	1	1	2,884	1,117	4,001	—	—	—	—	—	—	—	
Merchant class.....	5	—	2	1	36	7	20	2	706	77	1,314	252	72	14	16	5	108	18	252	48	—	1	2,531	425	2,956	—	—	—	—	—	—	—	
Skilled Workers —																																	
Bakers.....	—	—	—	—	12	—	6	—	267	3	455	8	55	—	—	48	—	64	—	—	—	922	11	933	—	—	—	—	—	—	—	—	
Barbers.....	—	—	—	—	3	1	1	—	82	28	143	60	10	2	1	5	3	21	10	—	—	266	107	373	—	—	—	—	—	—	—	—	
Blacksmiths.....	—	—	—	—	4	—	1	—	76	—	180	—	26	4	—	22	—	31	—	—	—	344	—	344	—	—	—	—	—	—	—	—	
Butchers.....	—	—	—	—	3	—	2	—	169	—	298	—	42	—	—	32	—	22	—	—	—	577	—	577	—	—	—	—	—	—	—	—	
Cabinetmakers.....	—	—	—	—	3	—	—	—	86	—	132	—	17	—	—	16	—	—	—	—	—	278	—	278	—	—	—	—	—	—	—	—	
Carpenters and woodworkers.....	4	—	1	—	43	—	24	—	700	—	1,902	2	198	—	—	216	—	330	—	—	—	3,532	2	3,534	—	—	—	—	—	—	—	—	
Dressmakers and seamstresses.....	—	—	—	—	—	2	—	6	14	243	9	365	2	38	—	26	—	—	—	—	—	27	724	751	—	—	—	—	—	—	—	—	
Engineers, locomotive, marine and stationary.....	—	—	—	—	7	—	2	—	37	—	114	—	2	—	—	2	—	—	—	—	—	186	—	186	—	—	—	—	—	—	—	—	
Electricians.....	—	—	1	—	23	1	9	—	677	—	1,294	—	143	—	—	105	—	172	—	—	—	2,447	3	2,450	—	—	—	—	—	—	—	—	
Fur workers.....	—	—	—	—	2	—	—	—	126	11	91	7	6	1	—	1	—	5	—	—	—	231	20	251	—	—	—	—	—	—	—	—	—
Jewellers, goldsmiths and silversmiths.....	—	—	—	—	—	—	—	—	95	—	63	1	8	—	—	3	—	10	1	—	—	179	2	181	—	—	—	—	—	—	—	—	
Locksmiths.....	—	—	—	—	2	—	2	—	116	—	251	—	46	—	—	15	—	24	1	—	—	487	1	488	—	—	—	—	—	—	—	—	
Machinists.....	—	—	—	—	10	1	—	—	575	—	1,191	6	104	—	—	20	—	57	—	—	—	2,083	8	2,091	—	—	—	—	—	—	—	—	—
Masons and bricklayers.....	1	—	—	—	23	—	13	—	394	—	1,193	1	100	—	—	50	—	79	—	—	—	1,948	1	1,949	—	—	—	—	—	—	—	—	—
Millers.....	—	—	—	—	—	—	—	—	23	—	42	—	10	—	—	5	—	2	—	—	—	82	—	82	—	—	—	—	—	—	—	—	—
Painters and glaziers.....	1	—	2	—	5	—	3	—	238	1	522	2	50	—	—	53	—	60	—	—	—	953	3	956	—	—	—	—	—	—	—	—	—
Photographers.....	1	—	—	—	2	—	—	—	56	9	95	9	3	—	—	4	—	14	2	—	—	177	22	199	—	—	—	—	—	—	—	—	—
Plasterers.....	—	—	—	—	1	—	20	—	20	—	129	—	4	—	—	8	—	7	—	—	—	170	—	170	—	—	—	—	—	—	—	—	—
Plumbers.....	—	—	—	—	5	—	2	—	149	—	351	—	53	—	—	49	—	44	—	—	—	662	—	662	—	—	—	—	—	—	—	—	—
Printers, pressmen and printing trade.....	—	—	—	—	3	—	9	—	90	5	215	4	9	—	—	6	—	31	—	—	—	367	9	376	—	—	—	—	—	—	—	—	—
Shoemakers.....	—	—	—	—	5	—	—	—	170	—	316	—	21	—	—	11	—	24	—	—	—	552	—	552	—	—	—	—	—	—	—	—	—
Sheet metal workers.....	—	—	—	—	3	—	—	—	49	—	216	—	13	—	—	2	—	16	—	—	—	299	—	299	—	—	—	—	—	—	—	—	—
Sailors.....	—	—	—	—	4	1	—	4	544	60	544	102	47	2	—	22	6	27	11	—	—	1,199	182	1,381	—	—	—	—	—	—	—	—	—
Textile workers, including weavers and spinners.....	—	—	—	—	6	1	1	—	440	57	798	188	27	5	—	10	2	20	5	—	—	1,302	262	1,564	—	—	—	—	—	—	—	—	—

8.—Intended Destinations and Occupations of Immigrants Entering Canada in 1951—concluded

Intended Occupation	Intended Destination																								Canada			
	Nfld.		P.E.I.		N.S.		N.B.		Que.		Ont.		Man.		Sask.		Alta.		B.C.		Yukon and N.W.T.							
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
Skilled Workers—concl.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Upholsters.....	—	—	—	—	1	—	2	—	53	—	105	1	11	—	3	—	4	—	15	—	—	—	—	—	194	1	191	—
Watch and clock makers.....	1	—	1	—	—	—	—	66	—	85	—	8	—	1	—	1	—	7	—	—	—	—	—	176	1	177	—	
Automobile mechanics.....	1	—	1	—	35	—	18	—	798	1	1,562	2	182	2	27	—	118	—	160	—	—	—	—	2,902	5	2,907	—	
Boilermakers.....	—	—	—	—	4	—	—	—	9	—	49	—	2	—	1	—	—	—	—	—	—	—	—	65	—	65	—	
Moulders.....	—	—	—	—	—	—	—	28	—	85	—	2	—	—	—	—	4	—	8	—	—	—	—	127	—	127	—	
Aircraft workers.....	2	—	—	—	9	—	1	—	316	—	583	6	15	—	—	—	8	—	39	1	—	—	—	974	7	981	—	
Skilled workers, <i>n.e.s.</i>	25	—	3	—	97	1	34	1	2,249	44	4,393	93	270	8	65	1	323	6	558	17	5	—	—	8,022	171	8,193	—	
Unskilled and Semi-Skilled Workers—																												
Lumbermen.....	1	—	—	—	22	—	27	—	1,238	—	2,723	2	116	—	6	—	45	—	597	—	—	—	—	—	4,775	2	4,777	—
Miners.....	—	—	—	—	10	—	4	—	1,764	—	993	—	75	—	7	—	67	—	102	—	3	—	—	—	3,025	1	3,026	—
Fishermen.....	—	—	—	—	—	—	2	—	4	—	12	—	—	—	—	—	—	—	33	—	—	—	—	—	57	—	57	—
General labourers.....	3	—	4	—	98	—	42	—	3,614	—	7,566	20	554	2	136	—	454	1	760	2	—	—	—	13,231	32	13,263	—	
Manufacturing.....	—	—	—	—	18	1	7	1	418	54	1,012	202	67	7	6	3	32	5	133	13	—	—	—	1,693	286	1,979	—	
Construction.....	2	—	—	—	4	1	3	—	210	—	556	1	53	—	9	—	34	—	100	—	—	—	—	971	2	973	—	
Transportation.....	5	—	—	—	36	—	5	—	302	—	1,220	2	75	1	20	—	60	—	150	1	—	—	—	1,873	11	1,884	—	
Apprentices to skilled trades	1	—	1	—	13	—	5	—	182	24	535	33	53	2	31	1	46	2	59	3	—	—	—	926	65	991	—	
Unskilled and semi-skilled, <i>n.e.s.</i>	1	1	2	4	12	25	11	19	690	442	1,187	1,032	46	91	23	40	61	93	95	182	—	—	—	2,128	1,929	4,057	—	
Other Classes—																												
Domestic servants.....	—	2	—	—	—	—	64	—	1,938	—	3,145	—	328	—	—	—	—	—	—	—	—	—	—	—	—	6,531	6,531	—
Dependent children.....	28	30	19	26	250	189	201	—	4,535	4,013	13,124	11,578	1,050	917	609	—	441	2,022	1,808	2,080	1,574	2	—	1,233	929	20,738	44,667	—
Dependent wives.....	—	57	—	33	—	365	—	268	—	7,808	—	19,207	—	1,528	—	742	—	2,230	—	2,693	—	—	—	7	—	34,938	34,938	—
Occupation not given.....	3	5	3	4	24	55	14	41	106	563	244	1,894	13	123	9	94	27	273	93	337	—	—	5	—	536	3,304	3,330	—
Miscellaneous¹	11	1	—	—	25	1	19	8	374	207	587	170	40	7	48	9	66	24	232	51	—	—	—	1,402	478	1,880	—	—
Totals	141	118	138	73	1,243	792	845	608	29,584	16,449	64,475	40,367	5,539	3,210	2,572	1,606	6,999	5,239	8,646	5,748	14	15	120,166	74,235	194,391	—	—	—

¹ Includes the following classes for which totals only are given here: bookbinders, 31; engravers, 29; hat and cap workers, 26; harness and saddle makers, 8; milliners, 25; stonecutters, 16; tanners, 35; tobacco workers, including cigarette and cigar makers, 2; ironworkers, *n.e.s.*, 150; pattern makers, 44; commercial pilots, 42; and soldiers, 72.

Rejections and Deportations.—The Immigration Act provides for the rejection and deportation of immigrants belonging to prohibited classes, and also for the deportation of those who become undesirables within five years after legal entry. The results of the operation of these regulations are shown in Table 9.

9.—Rejections and Deportations of Immigrants and Others, by Causes and Nationalities, 1949-51

NOTE.—Figures for 1953-48 are given in the corresponding tables of previous Year Books; those for 1940-48 are given in the 1951 edition, p. 150.

Cause and Nationality	Rejections			Cause and Nationality	Deportations		
	1949	1950	1951		1949	1950	1951
	No.	No.	No.		No.	No.	No.
From Overseas—				CAUSE			
CAUSE				Medical.....	48	47	40
Medical.....	45	23	15	Public charges.....	27	31	14
Civil.....	376	316	269	Criminality.....	94	100	85
				Misrepresentation and stealth....	190	176	286
NATIONALITY				Other causes.....	53	33	36
British.....	157	110	103	Accompanying deported persons..	3	5	—
United States.....	2	1	1				
Other.....	262	228	180	NATIONALITY			
Totals from Overseas.....	421	339	284	British.....	205	154	190
From United States.....	8,385	7,513	4,829	United States.....	92	108	70
				Other.....	118	130	201
Grand Totals, Rejections.....	8,806	7,852	5,113	Grand Totals, Deportations.....	415	392	461

Returning Canadians.—The numbers of Canadians who returned to Canada in the period 1942-51 after residing in the United States are given in Table 10.

10.—Canadians Returned from the United States, 1942-51

NOTE.—Aliens with Canadian domicile are not included in these figures. Figures for 1926-41 are given at p. 182 of the 1948-49 Year Book.

Year	Canadian-Born Citizens	British Born who had Acquired Canadian Domicile	Naturalized Canadian Citizens	Total	Year	Canadian-Born Citizens	British Born who had Acquired Canadian Domicile	Naturalized Canadian Citizens	Total
1942....	3,269	170	28	3,467	1947....	6,746	1,972	252	8,970
1943....	2,225	93	15	2,333	1948....	4,438	1,077	163	5,678
1944....	2,070	120	20	2,210	1949....	3,907	53	90	4,050
1945....	2,484	172	33	2,689	1950....	3,372	77	69	3,518
1946....	4,535	558	84	5,177	1951....	..	..	..	3,635

Section 2.—Emigration

Emigration from Canada is an important factor tending to offset the immigration activities of the past and has attained considerable proportions at certain periods. The two main factors have been the migration to the United States of Europeans originally immigrating to Canada and the emigration of native-born Canadians.

A question of considerable interest to Canadians is that of the permanent movement of population between Canada and the United States. In view of the lack of Canadian statistics on emigration, Table 11 has been compiled from figures supplied by the Immigration and Naturalization Service of the United States Department of Justice. Not all the statistics are available by months, so that it has not been possible to present the figures on a calendar-year basis; they are, therefore, shown on that of the United States fiscal year, July 1—June 30. The column headed "Deportable Aliens Destined to Canada" covers persons permitted to return to Canada in lieu of deportation proceedings.

11.—Presumed Permanent Movement of Population between Canada and the United States, Years Ended June 30, 1942-51

NOTE.—Figures for 1933-34 are given at p. 168 of the 1942 Year Book; for 1935-41 at p. 184 of the 1948-49 edition.

Year Ended June 30—	From United States to Canada				
	U.S. Citizens Entering Canada	Aliens Entering Canada	Aliens Deported to Canada	Deportable Aliens Destined to Canada ²	Total ^{1,2}
	No.	No.	No.	No.	No.
1942.....	3,413	595	631	2,187	6,826
1943.....	2,053	439	464	2,350	5,306
1944.....	2,282	451	665	3,500	6,898
1945.....	2,260	567	474	2,600	5,901
1946.....	4,624	745	672	2,800	8,841
1947.....	5,386	861	954	3,600	10,801
1948.....	4,880	1,055	887	2,000	8,822
1949 ³	3,698	1,233	869	1,800	7,600
1950 ³	3,839	2,267	737	1,300	8,143
1951 ³	3,372	3,202	1,100	1,400	9,074

	From Canada to United States				Net Movement from Canada
	Immigrant Aliens from Canada	U.S. Citizens Returning from Canada	Persons Deported from Canada	Total	
	No.	No.	No.	No.	
1942.....	10,450	4,725	107	15,282	-8,456
1943.....	9,571	4,892	78	14,541	-9,235
1944.....	9,821	4,743	69	14,633	-7,735
1945.....	11,079	5,138	188	16,405	-10,504
1946.....	20,434	6,769	414	27,617	-18,776
1947.....	23,467	5,003	589	29,059	-18,258
1948.....	24,788	4,946	512	30,246	-21,424
1949 ³	25,156	5,787	425	31,368	-23,768
1950 ³	21,885	3,859	476	26,220	-18,077
1951 ³	25,880	4,303	315	30,498	-21,424

¹ Figures do not include U.S.A. citizens who have entered Canada on permits and have applied for permission to remain in the country. Total U.S.A. immigrants arriving in Canada given in Table 2, p. 166, include this class.

² Estimated.

³ Including Newfoundland.

PART II.—CANADIAN CITIZENSHIP*

An outline of early naturalization procedure and events leading up to the passing of the Canadian Citizenship Act is given in the Year Book 1951, pp. 153-155.

Section 1.—The Canadian Citizenship Act

The coming into force of the Canadian Citizenship Act on Jan. 1, 1947, marked a new milestone in Canadian history. The passing of this Act exemplified the growth of autonomy in Canada and the advance of Canadian nationhood. Its purpose is to give a clear definition of Canadian citizenship and to provide an underlying community of status for all the people of Canada, helping to bind them together as Canadians.

On Jan. 18, 1950, the administration of Canadian citizenship was transferred from the Department of the Secretary of State to the newly established Department of Citizenship and Immigration. This change has been of considerable benefit in the co-ordination of administrative matters respecting citizenship and immigration, which are interrelated. It has had the additional effect of bringing citizenship to the status of a separate department wherein it is possible to advance materially the scientific planning of education and training in respect to the value and the importance of citizenship in Canada.

The provisions of the Citizenship Act with the changes occasioned by the 1950 and 1951 amendments are outlined in the following paragraphs.

Natural-Born Canadian Citizens.—The Act defines the status of natural-born Canadians before and after the coming into force of the Act, including persons born in and outside of Canada and those born on a Canadian ship or aircraft. A person born outside of Canada out of wedlock is a Canadian citizen if his mother was born in Canada, or on a Canadian ship or aircraft, or was a British subject with Canadian domicile, and had not become an alien. A person born outside of Canada of a Canadian parent before Jan. 1, 1947, is not a Canadian citizen unless, at the commencement of the Act, he had been admitted to Canada for permanent residence, or was a minor. If he was born after Jan. 1, 1947, he is a Canadian citizen, but he ceases to be a Canadian citizen upon reaching the age of two years unless, within that period, or within such extended period as may be authorized in special cases by the Minister, his birth is registered with an official Canadian representative abroad, or with the Minister of Citizenship and Immigration. In addition, a Canadian born outside of Canada before or after Jan. 1, 1947, ceases to be a Canadian citizen unless, within one year of age 21 (or within such longer period as may be authorized), he files a declaration of retention of Canadian citizenship and, in the case of dual nationality, a declaration renouncing the other nationality or citizenship. A Canadian citizen, whether he is abroad or at home, may obtain a certificate of proof of his Canadian citizenship upon payment of a fee of \$1. Under previous Acts, there was no provision for the issue of certificates of proof of citizenship.

British Subjects, Commonwealth Citizens, Citizens of the Republic of Ireland, and Canadian Citizens.—Sect. 21 of the Citizenship Act states that a Canadian citizen is a British subject. Before Jan. 1, 1947, he could not, officially,

* Prepared in the Canadian Citizenship Branch under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration.

describe himself as a Canadian citizen because the official designation for Commonwealth citizens was British subject. Now, he may officially call himself a *Canadian*. The authority for this procedure is found in Sect. 3 of the Act, which reads:—

“Where a person is required to state or declare his national status, any person who is a Canadian citizen under this Act shall state or declare himself to be a Canadian citizen and his statement or declaration to that effect shall be a good and sufficient compliance with such requirement.”

The rights of non-Canadian British subjects have not been changed or infringed upon by the new Act. They continue to have the right to vote in federal, provincial and municipal elections, but they are not Canadian citizens until they have lived five years in Canada. Those who had that residence (Canadian domicile) on Jan. 1, 1947, are Canadian citizens, and those who attain it after that date must apply for certificates of citizenship before being granted the status of Canadian citizens. The application may be made to the Minister of Citizenship and Immigration or, alternatively, to the court of the district in which the applicant resides. If the Minister is in any doubt as to the qualifications of the person who applies direct to him, he may refer the case to the court for consideration.

Citizens of the Republic of Ireland, who are not British subjects, have a special status in Canada. This status is set out in Sect. 23 (3) of the Act, as amended, as follows:—

“Any law of Canada, including this Act, and any regulation made under the authority of any law of Canada shall, unless it otherwise provides, have effect in relation to a citizen of the Republic of Ireland who is not a British subject in like manner as it has effect in relation to a British subject.”

Canadian Citizens other than Natural-Born.—Under Sect. 9 of the Act, persons naturalized in Canada before Jan. 1, 1947, and British subjects who had Canadian domicile at the commencement of the Act are Canadian citizens. Sect. 9 also defines the status as Canadian citizens of women and children, other than natural-born, and the manner in which they would have acquired Canadian citizenship.

Reinstatement of Persons of Canadian Origin Naturalized Outside of Canada.—By the amendment of July 20, 1950, the Minister may, in his discretion, grant a certificate of citizenship under Sect. 10 (4) of the Act to a person who was a natural-born Canadian, or who was a British subject of Canadian origin, and who lost such status by naturalization outside of Canada or for any reason other than marriage. The application is made direct to the Department and the qualifications are continuous residence in Canada for a period of one year immediately preceding the date of the application, and certain other general qualifications.

Status and Procedure of Non-Canadians to Canadian Citizenship.—Under Sect. 10 (1) of the Act any person who is not a Canadian citizen or is not otherwise a British subject, and is a resident of Canada, may take the first step towards citizenship at any time after his admission to Canada and after he has attained the age of 18 years by filing a Declaration of Intention in the office of the clerk of the court of the district in which he resides. He must then wait not less than one year, and not more than five, before filing with the court his application for citizenship, provided he has reached age 21. He must satisfy the court that he has resided in Canada for one year immediately preceding the date of his application, and a further period of four years in Canada during the six years immediately preceding the date of the application, making a total residence of five years. If

he served outside of Canada in the Armed Forces of Canada during time of war, or if the applicant is the wife of and resides in Canada with a Canadian citizen, the residence of one year immediately preceding the date of the application is all that is required. Additional requirements are lawful admission to Canada for permanent residence, good character, an adequate knowledge of English or French (such knowledge not required if he has resided continuously in Canada for more than 20 years), an adequate knowledge of the responsibilities and privileges of Canadian citizenship, and an intention, if his application is granted, either to reside permanently in Canada or to enter or continue in the public service of Canada or of a province thereof.

When the judge has given his decision, the papers and the decision are forwarded to the Minister of Citizenship and Immigration who may, in his discretion, grant a certificate of citizenship. When a certificate is granted, it is forwarded to the clerk of the court, who then notifies the applicant to appear in court for the purpose of taking the Oath of Allegiance and Declaration of Renunciation of Foreign Allegiance and receiving his certificate of citizenship.

If the application is rejected by the court or by the Minister, the applicant must wait two years before filing a new application.

Status of Married Women.—A Canadian woman does not lose Canadian citizenship upon marriage to an alien, and a non-Canadian woman does not become a Canadian citizen upon marriage to a Canadian citizen. In the former case, she may file with the Minister a Declaration of Renunciation of Canadian citizenship if she has acquired her husband's nationality, and she thereupon ceases to be a Canadian citizen. In the latter case, a non-Canadian woman must apply to the court for a certificate of citizenship. If she is a citizen of another Commonwealth country, she may apply direct to the Minister. The one concession as to qualifications is a residence of only one year in Canada.

A woman of Canadian origin who ceased to be a British subject by reason only of her marriage to an alien prior to Jan. 1, 1947, may regain her status and be granted a certificate of citizenship under Sect. 10 (3) of the Act upon application direct to the Department. She need not be a resident of Canada and no special qualifications are required.

Status of Minors, Foundlings, Posthumous Births, etc.—Under Sect. 10 (5) of the Act, the Minister, in his discretion, may grant a special certificate of citizenship to a minor child of a person to whom a certificate of citizenship is, or has been, granted under the Act, on the application of that person if the person is the responsible parent, provided the child was born before the date of the grant of the certificate and has been admitted to Canada for permanent residence. Under Sect. 11 (3), the Minister may, in his discretion, grant a certificate to a minor in any special case whether or not the conditions required by the Act have been complied with. Every foundling, who is or was first found as a deserted infant in Canada, shall, until the contrary is proved, be deemed to have been born in Canada. Where a child is born after the death of his father, the child shall, for the purposes of definition of natural-born Canadian citizens, be deemed to have been born immediately before the death of the father.

Children of Diplomatic Representatives in Canada.—By the amendment of July 20, 1950 (effective Jan. 1, 1947), Sect. 5 (2) excludes from the status of natural-born Canadian citizens the children born in Canada of parents

who, at the time of the birth, are the diplomatic or consular representatives of foreign countries in Canada, or who are employees in the service of such representatives.

Adopted or Legitimated Persons.—Effective July 20, 1950, Sect. 11 (2) of the Act provides that certificates of Canadian citizenship may be granted to adopted or legitimated persons who have been admitted to Canada for permanent residence if the adopter, or the legally recognized father, is a Canadian citizen.

Certificate in Case of Doubt.—Under Sect. 11 (1) of the Act, a certificate may be granted for the purpose of removing any doubts as to whether the person to whom it is granted is a Canadian citizen, and it is specifically provided that the granting of the certificate shall not be deemed to establish that the person to whom it is granted was not previously a Canadian citizen.

Protection of Status Prior to the Canadian Citizenship Act.—Sect. 44 of the Act provides that, notwithstanding the repeal of the Naturalization Act and the Canadian Nationals Act, the Canadian Citizenship Act is not to be construed or interpreted as depriving any person who is a Canadian national, a British subject or an alien as defined in the said Acts, or in any other law in force in Canada, of the national status he possesses at the time of the coming into force of this Act.

Loss of Canadian Citizenship.—Canadian citizenship may be lost for the following reasons:—

(1) A Canadian citizen who, when outside of Canada and not under disability (minor, lunatic or idiot), acquires, by a voluntary and formal act other than marriage, the nationality or citizenship of a country other than Canada. This does not apply if that country is at war with Canada at the time of acquisition but, in such a case, the Minister may order that he cease to be a Canadian citizen. The purpose of this is to hold the person, if deemed necessary, to his obligations as a Canadian.

(2) A Canadian citizen who, under the law of another country, is a national or citizen of such country and who serves in the armed forces of such country when it is at war with Canada. This does not apply if the Canadian citizen became a national or citizen of such country when it was at war with Canada.

(3) A Canadian citizen who, when in Canada, acquires voluntarily the citizenship of a foreign country (other than by marriage), may be deprived of his Canadian citizenship by Order of the Governor in Council, on recommendation of the Minister.

(4) Under Sect. 18 of the Act, a Canadian citizen, other than natural-born or one who has served in the Armed Forces of Canada in time of war, who resides outside of Canada for six consecutive years without maintaining substantial connection with Canada, loses his citizenship automatically, but the period of absence may, upon application, be extended beyond the six years for good and sufficient cause. Sect. 18 is effective from Jan. 1, 1947, and will come into operation on Jan. 1, 1953.

Loss of Citizenship by Revocation—Applicable Only to Naturalized Persons.—The citizenship of a Canadian citizen, other than a natural-born Canadian citizen, may be revoked by the Governor in Council for such reasons as trading or communicating with an enemy country during time of war; disaffection or disloyalty while out of Canada or who, while in Canada, has, by a court of competent jurisdiction, been convicted of any offence involving disaffection or disloyalty; obtaining a certificate of naturalization or Canadian citizenship by false representation or fraud; residence outside of Canada for not less than six years (without maintenance of substantial connection) since becoming a Canadian citizen or being naturalized in Canada; residence for not less than two years in a *foreign* country of which he was a national or citizen at any time prior to his becoming a Canadian citizen or being naturalized in Canada, and has not maintained substantial connection with Canada.

Loss of Citizenship by Revocation—Applicable to Both Natural-Born and Naturalized Persons.—The Governor in Council may, in his discretion, order that any person shall cease to be a Canadian citizen if, upon a report from the Minister of Citizenship and Immigration, he is satisfied that such person has, when not under a disability, (1) taken or made an oath, affirmation, or other declaration of allegiance to a foreign country, or (2) made a declaration renouncing his Canadian citizenship.

Loss of Citizenship in Relation to Women.—A female British subject who married an alien before Jan. 1, 1947, and upon marriage acquired her husband's alien nationality, ceased to be a British subject. If the husband was a British subject who became an alien during the course of the marriage and prior to Jan. 1, 1947, his wife became an alien if she acquired her husband's nationality.*

In the case of a marriage subsequent to Jan. 1, 1947, the woman, being a Canadian citizen, does not lose the status of a Canadian citizen unless, having on marriage acquired her husband's nationality, she makes a declaration renouncing her Canadian citizenship.†

Section 2.—Canadian Citizenship Statistics

In 1951, 20,937 Canadian citizenship certificates were issued, 20,423 in English and 514 in French. The corresponding figures for 1950 were 19,409 certificates, 18,923 in English and 486 in French.

During 1951, the Canadian Citizenship Registration Branch recorded 1,261 certificates of registration of births abroad, 8,653 declarations of intention filed with the courts, 91 declarations of retention of citizenship, and 49 declarations of resumption of Canadian citizenship. Certificates issued free to persons who had active military service numbered 591. Corresponding figures for 1950 were: 956 registrations of births abroad, 9,059 declarations of intention, 28 declarations of retention of citizenship, 3 declarations of resumption of citizenship and 764 certificates issued free to persons who had active military service.

* Persons in the above category were automatically restored to British nationality by the British Nationality Act, 1948.

† The foreign countries, under the laws of which a woman does not acquire the citizenship of such countries on marriage, are: Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, Morocco, Palestine, Panama, Paraguay and Uruguay.

1.—Citizenship Certificates Issued, by Status of Recipient, 1950 and 1951

Sections of Act	Classification	1950	1951
		No.	No.
Sect. 34 (1) (i)...	Certificates of Proof of Status—		
	Canadian citizens by birth.....	1,697	1,771
	By naturalization under former Acts.....	3,950	3,643
	British subjects with 5 years domicile before Jan. 1, 1947.....	1,857	1,647
	Women, through marriage.....	1,257	1,317
Sect. 10 (2).....	British subjects with 5 years domicile after Jan. 1, 1947.....	431	841
Sect. 10 (1).....	Aliens.....	8,931	9,359
Sect. 10 (5).....	Minors whose parents have been granted Certificates.....	636	1,067
Sect. 11 (3).....	Minors under special circumstances.....	62	39
Sect. 10 (3).....	Women who regained lost Canadian citizenship through marriage.....	486	1,006
Sect. 10 (4).....	Canadians who regained lost status by naturalization outside Canada..	84	227
Sect. 11 (1).....	Doubtful cases who have been now awarded Certificates.....	11	6
Sect. 11 (2).....	Adopted and legitimated persons.....	7	14
	Totals.....	19,409	20,937

2.—Certificates of Canadian Citizenship Issued to Aliens, by Country of Origin, 1950 and 1951

Country of Origin	1950	1951	Country of Origin	1950	1951
	No.	No.		No.	No.
Albania.....	2	3	Japan.....	323	292
Argentina.....	3	2	Latvia.....	9	14
Armenia.....	3	1	Lebanon.....	10	14
Austria.....	266	183	Liechtenstein.....	1	3
Belgium.....	131	146	Lithuania.....	94	96
Bulgaria.....	7	14	Luxembourg.....	5	1
Chile.....	—	1	Macedonia.....	2	1
China.....	2,068	3,006	Norway.....	197	127
Czechoslovakia.....	563	437	Palestine.....	3	3
Danzig.....	1	2	Poland.....	1,569	1,453
Denmark.....	152	141	Portugal.....	—	3
Egypt.....	1	—	Roumania.....	310	334
Estonia.....	9	16	Spain.....	6	11
Finland.....	322	262	Sweden.....	120	108
France.....	67	94	Switzerland.....	79	107
Germany.....	472	414	Syria.....	8	11
Greece.....	101	126	The Netherlands.....	178	169
Haiti.....	—	2	Turkey.....	3	10
Honduras.....	—	1	Union of Soviet Socialist Republics	392	323
Hungary.....	403	394	United States of America.....	405	458
Iceland.....	9	14	Yugoslavia.....	236	212
Iraq.....	1	1	Stateless.....	16	21
Israel.....	—	6			
Italy.....	384	322	Totals.....	8,931	9,359

CHAPTER V.—VITAL STATISTICS*

CONSPECTUS

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NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

The history of the collection of vital statistics in Canada is covered broadly at pp. 185-188 of the 1948-49 edition of the Year Book.

Unless otherwise specified, figures for Newfoundland, which entered Canadian Confederation on Mar. 31, 1949, have been incorporated where available in all tables for 1949 and 1950; where shown separately for the years prior to 1949, data have been taken from the Annual Reports of the Registrar General of Newfoundland. Available data for the Yukon and Northwest Territories are shown separately in Section 6, p. 220.

Numbers and rates of births and deaths are classified by place of residence and those for marriages by place of occurrence.

Section 1.—Summary of Vital Statistics

Tables 1 to 6 give a summary of the vital statistics of the provinces of Canada for the years 1941 to 1950.

In comparing the birth, death and marriage rates of the provinces, it is important to bear in mind that part of the differences observed may be due to differences in the sex and age distribution of their populations. Similarly, changes in these rates may be due partly to changes in this distribution. These remarks also apply to international comparisons of birth, death and marriage rates. For example, over the past 15 to 20 years, the crude death rate in British Columbia has been rising, while in Ontario it has been declining gradually with the result that, though 15 years ago the death rate in Ontario was considerably higher than in British Columbia, at present the situation is reversed. This does not mean, however, that the mortality rates at each age have risen in British Columbia. On the contrary,

* Revised in the Vital Statistics Section, Health and Welfare Division, Dominion Bureau of Statistics.

they have been falling. The death rate for the population as a whole has been rising since the increasing proportion of population in the higher age groups has more than outweighed the fall in the mortality rates at each age.

**1.—Live Births and Rates per 1,000 Population, by Provinces, 1947-50,
with Averages, 1941-45**

(Exclusive of the Territories)

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹
LIVE BIRTHS											
Av. 1941-45 ^r	9,292	2,180	15,146	13,037	97,906	77,738	15,831	18,444	18,845	17,705	276,832
1947.....	12,646	2,992	19,265	17,771	115,553	108,853	20,409	23,334	24,631	26,286	359,094
1948.....	11,634	2,842	17,791	17,279	114,709	104,195	18,870	21,562	24,075	25,984	347,307
1949.....	12,281	2,831	17,739	16,673	116,824	106,601	19,292	21,662	24,935	27,301	366,139
1950.....	13,164	2,885	17,262	16,393	119,111	108,708	19,261	21,546	25,625	27,116	371,071
RATES PER 1,000 POPULATION											
Av. 1941-45 ^r	29.7	23.7	25.2	28.2	28.4	19.9	21.7	21.6	23.5	19.8	23.5
1947.....	37.5	31.8	31.0	36.2	31.1	26.0	27.5	27.7	30.0	25.2	28.6
1948.....	33.8	30.6	28.0	34.4	30.3	24.2	24.9	25.2	28.5	24.0	27.0
1949.....	35.3	30.1	27.5	32.3	30.1	24.2	24.8	25.2	28.6	24.5	27.1
1950.....	37.5	30.1	27.1	32.0	30.0	24.3	25.1	25.9	28.1	23.8	27.1

¹ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

**2.—Deaths and Rates per 1,000 Population, by Provinces, 1947-50,
with Averages, 1941-45**

(Exclusive of the Territories)

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹
DEATHS											
Av. 1941-45 ^r	3,681	964	6,326	5,050	34,273	39,738	6,633	6,437	6,355	9,368	115,144
1947.....	3,325	1,020	6,009	4,832	33,708	41,619	6,771	6,610	6,543	10,613	117,725
1948.....	3,108	887	6,097	4,959	33,603	42,364	6,075	6,496	6,987	11,316	119,384
1949.....	2,868	924	5,980	4,876	34,107	43,379	6,919	6,596	7,083	11,315	124,047
1950.....	3,168	903	6,078	4,895	33,507	43,948	6,610	6,243	6,856	11,581	123,789
RATES PER 1,000 POPULATION											
Av. 1941-45 ^r	11.8	10.5	10.5	10.9	9.9	10.2	9.1	7.5	7.9	10.5	9.8
1947.....	9.9	10.9	9.7	9.8	9.1	9.9	9.1	7.9	8.0	10.2	9.4
1948.....	9.0	9.5	9.6	9.9	8.9	9.9	8.8	7.6	8.3	10.5	9.3
1949.....	8.2	9.8	9.3	9.4	8.8	9.8	8.9	7.7	8.1	10.2	9.2
1950.....	9.0	9.4	9.5	9.6	8.4	9.8	8.6	7.5	7.5	10.2	9.0

¹ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

3.—Natural Increase and Rates per 1,000 Population, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹
EXCESS OF BIRTHS OVER DEATHS											
Av. 1941-45 [*]	5,611	1,216	8,820	7,987	63,633	38,000	9,198	12,007	12,490	8,337	161,688
1947.....	9,321	1,972	13,256	12,939	81,845	67,234	13,638	16,724	18,088	15,673	241,369
1948.....	8,526	1,955	11,694	12,320	81,106	61,831	12,195	15,066	17,088	14,668	227,923
1949.....	9,413	1,907	11,759	11,797	82,717	63,222	12,373	15,066	17,852	15,986	242,092
1950.....	9,996	1,982	11,184	11,498	85,604	64,760	12,651	15,303	18,769	15,535	247,282
RATES PER 1,000 POPULATION											
Av. 1941-45 [*]	17.9	13.2	14.7	17.3	18.5	9.7	12.6	14.1	15.6	9.3	13.7
1947.....	27.6	20.9	21.3	26.4	22.0	16.1	18.4	19.8	22.0	15.0	19.2
1948.....	24.8	21.1	18.4	24.5	21.4	14.3	16.1	17.6	20.2	13.5	17.7
1949.....	27.1	20.3	18.2	22.9	21.3	14.4	15.9	17.5	20.5	14.3	17.9
1950.....	28.5	20.7	17.6	22.4	21.6	14.5	16.5	18.4	20.6	13.6	18.1

¹ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

4.—Infant Mortality¹ and Rates per 1,000 Live Births, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ²
INFANT DEATHS											
Av. 1941-45 [*]	852	114	870	960	6,690	3,276	814	858	827	684	15,093
1947.....	790	135	840	1,041	6,583	3,914	931	1,018	915	959	16,336
1948.....	685	97	695	1,047	6,211	3,684	765	867	930	868	15,164
1949.....	651	135	750	993	6,031	3,974	794	834	823	858	15,843
1950.....	758	105	693	927	6,091	3,751	673	690	831	805	15,324
RATES PER 1,000 LIVE BIRTHS											
Av. 1941-45 [*]	92	52	57	74	68	42	51	47	44	39	55
1947.....	62	45	44	59	57	36	46	44	37	36	45
1948.....	59	34	39	61	54	35	41	40	39	33	44
1949.....	53	48	42	60	52	37	41	39	33	31	43
1950.....	58	36	40	57	51	35	35	32	32	30	41

¹ Under one year of age.² Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

5.—Maternal Deaths and Rates per 1,000 Live Births, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)

Year	MATERNAL DEATHS											Maternal Deaths of Unmarried Mothers	
	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹	No.	P.C. of Total
Av. 1941-45 ¹	39	9	41	42	318	197	41	52	46	46	791	53	6.65
1947.....	29	6	20	25	259	129	23	38	22	32	554	34	6.14
1948.....	22	3	19	23	232	125	28	22	29	29	510	37	7.25
1949.....	24	1	20	18	234	134	25	27	25	28	536	40	7.46
1950.....	21	3	21	15	182	97	14	21	19	27	420	24	5.71
	RATES PER 1,000 LIVE BIRTHS											Per 1,000 Illegitimate Live Births	
	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹	No.	P.C. of Total
Av. 1941-45 ¹	4.2	3.9	2.7	3.2	3.2	2.5	2.6	2.8	2.4	2.6	2.9	4.6	
1947.....	2.3	2.0	1.0	1.4	2.2	1.2	1.1	1.6	0.9	1.2	1.5	2.3	
1948.....	1.9	1.1	1.1	1.3	2.0	1.2	1.5	1.0	1.2	1.1	1.5	2.5	
1949.....	2.0	0.4	1.1	1.1	2.0	1.3	1.3	1.2	1.0	1.0	1.5	2.8	
1950.....	1.6	1.0	1.2	0.9	1.5	0.9	0.7	1.0	0.7	1.0	1.1	1.7	

¹ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

6.—Marriages and Rates per 1,000 Population, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)

NOTE.—Classified by place of occurrence.

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹
MARRIAGES											
Av. 1941-45 ¹	2,967	686	6,302	4,433	33,126	38,042	7,295	6,541	7,977	9,535	113,936
1947.....	2,917	676	5,861	5,189	35,494	44,056	7,712	7,674	8,797	11,852	127,311
1948.....	2,610	635	5,093	4,640	34,646	43,242	7,325	7,171	8,844	11,718	123,314
1949.....	2,445	619	5,058	4,251	33,485	43,304	7,265	7,037	9,037	11,376	123,877
1950.....	2,515	616	5,065	4,376	34,093	43,744	7,128	6,904	9,294	11,110	124,845
RATES PER 1,000 POPULATION											
Av. 1941-45 ¹	9.5	7.5	10.5	9.6	9.6	9.7	10.0	7.6	10.0	10.7	9.7
1947.....	8.7	7.2	9.4	10.6	9.6	10.5	10.4	9.1	10.7	11.4	10.1
1948.....	7.6	6.8	8.0	9.2	9.1	10.1	9.7	8.4	10.5	10.8	9.6
1949.....	7.0	6.6	7.8	8.2	8.6	9.8	9.3	8.2	10.4	10.2	9.2
1950.....	7.2	6.4	7.9	8.5	8.6	9.8	9.3	8.3	10.2	9.8	9.1

¹ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

Section 2.—Births

International Comparisons.—A comparison of the birth rates in Canada and the provinces with those in other countries is shown in Table 7.

7.—Birth Rates per 1,000 Population of Various Countries compared with Canada and the Provinces, 1950

(Source: *Monthly Bulletin of Statistics of the United Nations* and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Birth Rate	Country or Province	Birth Rate	Country	Birth Rate
Mexico.....	45.7	Canada—concluded		Northern Ireland.....	21.4 ²
Venezuela.....	43.1	Manitoba.....	25.1	Ireland.....	21.0
Ceylon.....	40.2	Ontario.....	24.3	France ¹	20.4
Chile.....	32.4	British Columbia.....	23.8	Spain.....	19.9
Peru.....	30.4			Italy.....	19.6
Japan.....	28.3	Union of South Africa (White).....	25.7	Norway.....	19.3
Canada.....	27.1	India ¹	25.5	Denmark.....	18.6
Newfoundland.....	37.5	New Zealand.....	24.6	Switzerland.....	18.1
New Brunswick.....	32.0	Finland.....	24.4	Scotland.....	17.9
Prince Edward Island.....	30.1	Portugal.....	24.2	Belgium.....	16.5
Quebec.....	30.0	United States.....	23.4	Sweden.....	16.4
Alberta.....	28.1	Australia.....	23.3	Western Germany.....	16.2
Nova Scotia.....	27.1	Czechoslovakia.....	22.9	England and Wales.....	15.8
Saskatchewan.....	25.9	Netherlands.....	22.7	Austria.....	15.6

¹ Registration area only.
registration of birth.

² 1949.

³ Excluding infants born alive but who died before

Canadian Births.—In Canada, the birth rate in 1921 was 29 per 1,000. Since a rate of 35 per 1,000 is very high for countries of modern western civilization, the Canadian birth rate had probably not fallen far or for long before then. It fell continuously until 1937, when it was 20 per 1,000 but since then, owing to economic recovery and the War, it rose to 22 in 1940, to 24 in 1943 and reached its highest point in 1947 at 28.6. The rate declined gradually since that year and stood at 27 in 1950. The birth rates in the provinces followed the same general trend, but in the Maritimes the fall stopped before 1930.

Sex of Live Births.—Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that a proper ratio of male to female births has become one of the criteria of complete registration. The number of males to every 1,000 females born in Canada in 1941-50 varied between 1,067 and 1,051.

8.—Live Births by Sex, Birth Rates, and Ratio of Males to Females, by Provinces, 1947-50

Province and Year	Total Live Births	Rate per 1,000 Population	Males		Females		Males to 1,000 Females
			Number	P.C. of Total	Number	P.C. of Total	
Newfoundland.....1949	12,281	35.3	6,255	50.9	6,026	49.1	1,038
.....1950	13,164	37.5	6,853	52.1	6,311	47.9	1,086
Prince Edward Island.....1947	2,992	31.8	1,532	51.2	1,460	48.8	1,049
.....1948	2,842	30.6	1,453	51.1	1,389	48.9	1,046
.....1949	2,831	30.1	1,457	51.5	1,374	48.5	1,060
.....1950	2,885	30.1	1,442	50.0	1,443	50.0	999
Nova Scotia.....1947	19,265	31.0	9,771	50.7	9,494	49.3	1,029
.....1948	17,791	28.0	9,094	51.1	8,697	48.9	1,046
.....1949	17,739	27.5	9,219	52.0	8,520	48.0	1,082
.....1950	17,262	27.1	8,895	51.5	8,367	48.5	1,063

**8.—Live Births by Sex, Birth Rates, and Ratio of Males to Females,
by Provinces, 1947-50—concluded**

Province and Year	Total Live Births	Rate per 1,000 Popu- lation	Males		Females		Males to 1,000 Females
			Number	P.C. of Total	Number	P.C. of Total	
New Brunswick.....1947	17,771	36.2	9,134	51.4	8,637	48.6	1,058
1948	17,279	34.4	8,889	51.4	8,390	48.6	1,059
1949	16,673	32.3	8,603	51.6	8,070	48.4	1,066
1950	16,393	32.0	8,472	51.7	7,921	48.3	1,070
Quebec.....1947	115,553	31.1	59,393	51.4	56,160	48.6	1,058
1948	114,709	30.3	58,938	51.4	55,771	48.6	1,057
1949	116,824	30.1	60,153	51.5	56,671	48.5	1,061
1950	119,111	30.0	61,333	51.5	57,778	48.5	1,062
Ontario.....1947	108,853	26.0	55,716	51.2	53,137	48.8	1,049
1948	104,195	24.2	53,459	51.3	50,736	48.7	1,054
1949	106,601	24.2	54,784	51.4	51,817	48.6	1,057
1950	108,708	24.3	55,911	51.4	52,797	48.6	1,059
Manitoba.....1947	20,409	27.5	10,374	50.8	10,035	49.2	1,034
1948	18,870	24.9	9,615	51.0	9,255	49.0	1,039
1949	19,292	24.8	9,949	51.6	9,343	48.4	1,065
1950	19,261	25.1	9,950	51.7	9,311	48.3	1,069
Saskatchewan.....1947	23,334	27.7	11,968	51.3	11,366	48.7	1,053
1948	21,562	25.2	11,012	51.1	10,550	48.9	1,044
1949	21,662	25.2	11,179	51.6	10,483	48.4	1,060
1950	21,546	25.9	11,027	51.2	10,519	48.8	1,048
Alberta.....1947	24,631	30.0	12,680	51.5	11,951	48.5	1,061
1948	24,075	28.5	12,331	51.2	11,744	48.8	1,050
1949	24,935	28.6	12,783	51.3	12,152	48.7	1,052
1950	25,625	28.1	13,138	51.3	12,487	48.7	1,052
British Columbia.....1947	26,286	25.2	13,405	51.0	12,881	49.0	1,041
1948	25,984	24.0	13,332	51.3	12,652	48.7	1,054
1949	27,301	24.5	13,957	51.1	13,344	48.9	1,046
1950	27,116	23.8	13,887	51.2	13,229	48.8	1,050
Canada (Exclusive of the Territories).....1947	359,094	28.6	183,973	51.2	175,121	48.8	1,051
1948	347,307	27.0	178,123	51.3	169,184	48.7	1,053
1949	366,139	27.1	188,339	51.4	177,800	48.6	1,059
1950	371,071	27.1	190,908	51.4	180,163	48.6	1,060

Hospitalization and medical attendance at birth have increased in Canada. In 1926-30, only 22 p.c. of live births occurred in hospital, while in 1940-42 the proportion was 50 p.c. and in 1950, 76 p.c. The provinces still differ greatly in this respect. In 1950 the proportions of births that occurred in hospital were: Quebec 47 p.c., New Brunswick 68 p.c., Prince Edward Island 84 p.c., Nova Scotia 85 p.c., Ontario 90 p.c., Manitoba 91 p.c., Saskatchewan 95 p.c., Alberta 96 p.c., and British Columbia 97 p.c.

Births in Urban Centres.—The figures of live births are classified according to the residence of the mother, and show the number of births, wherever occurring, to residents of each centre.

**9.—Live Births in Urban Centres of 10,000 Population or Over,¹ 1947-50,
with Averages, 1941-45**

Province and Urban Centre	Census Population, 1941	Live Births				
		Average, 1941-45	1947	1948	1949	1950
Newfoundland—	No.	No.	No.	No.	No.	No.
St. John's.....	44,603 ²	*	1,720	1,518	1,482	1,547
Prince Edward Island—						
Charlottetown.....	14,821	385	506	495	499	504
Nova Scotia—						
Dartmouth.....	10,847	405	517	463	521	523
Glace Bay.....	25,147	729	898	750	724	674
Halifax.....	70,488	2,027	2,517	2,396	2,244	2,323
Sydney.....	28,305	930	1,071	968	997	982
Truro.....	10,272	292	396	327	313	287
New Brunswick—						
Fredericton.....	10,062	228	482	447	446	441
Moncton.....	22,763	644	876	805	710	682
Saint John.....	51,741	1,364	1,734	1,621	1,459	1,480
Quebec—						
Cap-de-la-Madeleine.....	11,961	371	445	530	577	590
Chicoutimi.....	16,040	890	958	1,003	1,002	931
Drummondville.....	10,555	370	485	456	463	503
Granby.....	14,197	464	700	645	726	737
Hull.....	32,947	1,174	1,454	1,402	1,341	1,372
Joliette.....	12,749	407	415	425	466	434
Jonquière.....	13,760	862	740	891	902	903
Lachine.....	20,051	501	669	629	680	696
Lévis.....	11,991	328	374	352	330	344
Montreal.....	903,007	21,356	24,646	24,267	24,487	25,177
Outremont.....	30,751	331	433	291	250	298
Quebec.....	150,757	4,315	4,490	4,132	4,145	4,151
St. Hyacinthe.....	17,798	419	560	544	472	587
St. Jean.....	13,646	415	450	512	509	586
St. Jérôme.....	11,329	429	586	575	535	572
Shawinigan Falls.....	20,325	850	909	902	877	858
Sherbrooke.....	35,965	1,141	1,478	1,428	1,487	1,591
Sorel.....	12,251	480	525	487	444	438
Thetford Mines.....	12,716	417	493	405	466	437
Three Rivers.....	42,007	1,235	1,235	1,256	1,359	1,395
Valleyfield.....	17,052	665	660	686	692	683
Verdun.....	67,349	1,520	1,775	1,762	1,763	1,727
Westmount.....	26,047	251	297	276	304	238
Ontario—						
Belleville.....	15,710	383	519	457	484	488
Brantford.....	31,948	765	1,083	890	963	908
Brockville.....	11,342	260	364	332	371	316
Chatham.....	17,369	412	554	507	529	529
Cornwall.....	14,117	506	698	541	492	427
Forest Hill.....	11,757	158	209	214	202	196
Fort William.....	30,585	648	986	893	921	911
Galt.....	15,346	312	457	404	404	457
Guelph.....	23,273	469	693	649	694	645
Hamilton.....	166,337	3,462	4,694	4,250	4,517	4,655
Kingston.....	30,126	844	1,041	870	912	860
Kitchener.....	35,657	711	1,051	1,042	1,040	1,089
London.....	78,264	1,689	2,425	2,262	2,200	2,240
Niagara Falls.....	20,589	540	786	639	542	479
North Bay.....	15,599	362	509	478	488	469
Oshawa.....	26,813	584	737	706	737	780
Ottawa.....	154,951	3,357	4,532	4,057	3,754	4,798
Owen Sound.....	14,002	315	476	407	421	383
Pembroke.....	11,159	299	358	346	349	380
Peterborough.....	25,350	680	1,092	1,019	1,057	1,017
Port Arthur.....	24,426	558	831	800	829	781
St. Catharines.....	30,275	734	1,004	853	796	824
St. Thomas.....	17,132	382	444	399	421	417
Sarnia.....	18,734	447	701	606	594	596
Sault Ste. Marie.....	25,794	725	919	829	859	812
Stratford.....	17,038	288	445	432	417	405
Sudbury.....	32,203	1,324	1,408	1,357	1,308	1,417

¹ As at the 1941 Census.
of the period.

² 1945 Census of Newfoundland.

* Not available for one year

**9.—Live Births in Urban Centres of 10,000 Population or Over,¹ 1947-50,
with Averages, 1941-45—concluded**

Province and Urban Centre	Census Population, 1941	Live Births				
		Average, 1941-45	1947	1948	1949	1950
	No.	No.	No.	No.	No.	No.
Ontario—concluded						
Timmins.....	28,790	833	953	858	851	824
Toronto.....	667,457	11,163	15,261	13,945	13,618	13,446
Welland.....	12,500	357	412	407	382	377
Windsor.....	105,311	2,383	3,027	2,874	2,955	2,962
Woodstock.....	12,461	267	349	303	347	327
Manitoba—						
Brandon.....	17,383	356	438	426	468	483
St. Boniface.....	18,157	425	687	635	662	696
Winnipeg.....	221,960	4,087	5,637	4,854	5,019	5,197
Saskatchewan—						
Moose Jaw.....	20,753	462	678	606	602	587
Prince Albert.....	12,508	340	536	478	508	448
Regina.....	58,245	1,172	1,823	1,691	1,609	1,631
Saskatoon.....	43,027	843	1,481	1,329	1,449	1,454
Alberta—						
Calgary.....	88,904	2,058	3,069	2,933	3,143	3,135
Edmonton.....	93,817	2,379	3,999	4,083	4,353	4,745
Lethbridge.....	14,612	372	588	558	558	647
Medicine Hat.....	10,571	287	378	432	436	385
British Columbia—						
New Westminster.....	21,967	493	612	593	589	579
Vancouver.....	275,353	5,397	7,811	7,195	7,522	7,329
Victoria.....	44,068	1,150	1,213	1,189	1,090	1,039

¹ As at the 1941 Census.

Illegitimacy.—Less than 4 p.c. of live births in Canada are illegitimate. This percentage is comparatively low; in the five-year period 1926-30 it was 3 p.c. and in 1941-45 it was just over 4 p.c. The apparent increase was due partly to the more complete registration of illegitimate births, brought about in large measure by the co-operation of provincial registration officials and social welfare agencies.

**10.—Illegitimate Live Births and Percentages of Total Live Births, by Provinces,
1947-50, with Averages, 1941-45**

(Exclusive of the Territories)

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹
ILLEGITIMATE LIVE BIRTHS											
Av. 1941-45 ¹	406	107	1,074	591	3,003	3,751	597	673	852	889	11,536
1947.....	374	149	1,325	767	3,183	4,748	744	961	1,159	1,502	14,538
1948.....	377	134	1,250	797	3,439	4,795	786	917	1,222	1,585	14,925
1949.....	484	161	1,172	745	3,555	3,802	773	835	1,224	1,639	14,390
1950.....	462	165	1,184	687	3,700	3,772	778	899	1,185	1,593	14,425
PERCENTAGES OF TOTAL LIVE BIRTHS											
Av. 1941-45 ¹	4.4	4.9	7.1	4.5	3.1	4.8	3.8	3.6	4.5	5.0	4.2
1947.....	3.0	5.0	6.9	4.3	2.8	4.4	3.6	4.1	4.7	5.7	4.1
1948.....	3.2	4.7	7.0	4.6	3.0	4.6	4.2	4.3	5.1	6.1	4.3
1949.....	3.9	5.7	6.6	4.5	3.0	3.6	4.0	3.9	4.9	6.0	3.9
1950.....	3.5	5.7	6.9	4.2	3.1	3.5	4.0	4.2	4.6	5.9	3.9

¹ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

Stillbirths.—The rate of stillbirths has been falling since 1926, though not equally in all provinces. The rate of illegitimate stillbirths per 1,000 illegitimate live births is considerably higher than the rate of legitimate stillbirths, and consequently higher than the over-all rate.

**11.—Stillbirths and Rates per 1,000 Live Births, by Provinces, 1947-50,
with Averages, 1941-45**
(Exclusive of the Territories)

Year	Born to All Mothers											Born to Unmarried Mothers ²	
	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹	No.	P.C. of Total
STILLBIRTHS													
Av. 1941-45*	191	50	388	295	2,786	1,988	345	348	327	309	6,838	355	5.20
1947.....	175	58	401	344	3,029	2,176	336	362	415	340	7,461	338	4.53
1948.....	211	50	335	350	2,769	1,972	315	347	372	339	6,849	325	4.75
1949.....	223	48	352	308	2,881	2,002	340	325	403	393	7,275	329	4.67
1950.....	224	52	325	279	2,886	1,932	394	346	372	369	7,179	372	5.35
RATES PER 1,000 LIVE BIRTHS												Per 1,000 Illegitimate Live Births ²	
Av. 1941-45*	20.5	22.8	25.6	22.6	28.5	25.6	21.8	18.9	17.4	17.5	24.7	30.8	
1947.....	13.9	19.4	20.8	19.4	26.2	20.0	16.5	15.5	16.8	12.9	20.8	23.2	
1948.....	18.2	17.6	18.8	20.3	24.1	18.9	16.7	16.1	15.5	13.0	19.7	21.8	
1949.....	18.2	17.0	19.8	18.5	24.7	18.8	17.6	15.0	16.2	14.4	19.9	23.7	
1950.....	17.0	18.0	18.8	17.0	24.2	17.8	20.5	16.1	14.5	13.6	19.3	26.6	

¹ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

² Exclusive of Newfoundland.

Multiple Births.—Approximately one confinement in 85 in Canada results in the birth of more than one child. In the period 1926-50 there have been 78,017 such confinements, of which 77,303 were twins and 704 were triplets. There have been nine sets of quadruplets. The Dionne quintuplets were born in 1934.

The proportion of stillbirths is higher among multiple than among single births. It is about twice as high for twins and between three and five times as high for triplets.

12.—Single and Multiple Births, Live and Stillborn, 1947-50

(Exclusive of the Territories)

Confinements and Births	Numbers				Percentages			
	1947 ¹	1948 ¹	1949	1950	1947 ¹	1948 ¹	1949	1950
Confinements—								
Single.....	358,385	346,160	364,955	369,573	98.9	98.9	98.9	98.8
Twin.....	4,031	3,940	4,169	4,285	1.1	1.1	1.1	1.1
Triplet.....	36	36	39	34	—	—	—	—
Quadruplet.....	—	2	1	—	—	—	—	—
Totals, Confinements	362,452	350,138	369,164	373,897	100.0	100.0	100.0	100.0
Births—								
Single.....								
Live.....	351,281	339,624	358,087	362,712	98.0	98.1	98.1	98.1
Stillborn.....	7,104	6,536	6,868	6,866	2.0	1.9	1.9	1.9
Twin.....								
Live.....	7,712	7,578	7,940	8,261	95.7	96.2	95.2	96.4
Stillborn.....	350	302	398	309	4.3	3.8	4.8	3.6
Triplet.....								
Live.....	101	97	108	98	93.5	89.8	92.3	96.1
Stillborn.....	7	11	9	4	6.5	10.2	7.7	3.9
Quadruplet.....								
Live.....	—	8	4	—	—	100.0	100.0	—
Stillborn.....	—	—	—	—	—	—	—	—
Totals, Births.....	366,555	354,156	373,414	378,250	100.0	100.0	100.0	100.0
Live.....	359,094	347,307	366,139	371,071	98.0	98.1	98.1	98.1
Stillborn.....	7,461	6,849	7,275	7,179	2.0	1.9	1.9	1.9

¹ Exclusive of Newfoundland.

Fertility Rates.—The sex and age distribution of the population is an important factor in determining birth, death and marriage rates. Since more than 95 p.c. of children are born to women between the ages of 15 and 50, differences in the proportion of women of these ages to the population as a whole will cause differences in the birth rates of different countries or regions, even though the fertility of women at each age may be the same. Measures of fertility which are independent of the sex and age distribution of the population have, therefore, been devised. The best known of these are age-specific fertility rates and reproduction rates.

Further details on this subject may be found at pp. 153-154 of the 1947 edition of the Year Book or from the D.B.S. report *Gross and Net Reproduction Rates, Canada and the Provinces*.

Ages of Parents.—Ages of the parents is an important variable in any analysis of birth statistics. The numerical and percentage distribution of legitimate live births by the ages of the parents is given in Table 13, of illegitimate live births by the age of the mother in Table 14, and of stillbirths by the age of the mother in Table 15, as well as the average ages of the parents for each year shown.

In 1930-32 the average age of fathers was 33·7 years and of mothers 29·3 years. The average age of parents is now slightly lower. Besides the fertility rates at each age, two other factors help, in the main, to determine the average age of parents having children: first, the average age of potential parents, at any point in time, that is, of the population between the ages of 15 and 50, and secondly, the proportions of first and second births to the total. The average age of men between 15 and 50 was 30·9 years in 1931 and 30·7 in 1941; the average age of women was 30·4 years in 1931 and again 30·4 in 1941. Thus the changes are very small. Other things being equal, a high proportion of first and second births will result in a lower average age of parents. In 1930-32 first and second births were 43 p.c. of the total births. By the period 1945-48 first and second births together were 57 p.c. of the total. These changes are very great and account for the lower average age of parents in recent years. However, in 1949 and 1950 the proportions of first and second births had declined to 54 and 53 p.c., respectively.

Tables 13, 14 and 15 illustrate other significant facts: that the average age of fathers of legitimate children is about four years greater than the average age of mothers; that the average age of mothers of illegitimate children is four to five years less than the average age of mothers of legitimate children—in 1930-32 the difference was six years (the fact that over 70 p.c. of illegitimate children are born to mothers under 25 years of age accounts for this difference); and that the average age of mothers of stillborn children is higher than that of the live born. Further, Table 15 shows that the rate of stillbirths per 1,000 live births increases with the age of the mother. It is almost three times as high among mothers of 40-44 years as it is among mothers at the ages of 20-24, and almost four times as high among mothers of 45-49 years.

13.—Legitimate Live Births, by Ages of Parents, 1948-50

(Exclusive of Newfoundland and the Territories)

Age Group	Fathers						Mothers					
	1948		1949		1950		1948		1949		1950	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 20 years.....	2,301	0.7	2,472	0.7	2,597	0.8	18,337	5.5	19,043	5.6	19,193	5.6
20 - 24 ".....	49,581	14.9	49,853	14.8	49,244	14.4	93,695	28.2	93,786	27.6	93,042	27.1
25 - 29 ".....	94,460	28.4	97,878	29.0	99,274	29.0	101,635	30.6	106,201	31.3	107,753	31.3
30 - 34 ".....	82,139	24.7	82,408	24.4	84,079	24.6	67,475	20.3	68,171	20.1	70,478	20.5
35 - 39 ".....	56,730	17.1	58,126	17.2	58,928	17.2	38,071	11.5	39,515	11.6	40,246	11.7
40 - 44 ".....	29,454	8.9	29,744	8.8	30,514	8.9	11,995	3.6	12,037	3.5	12,094	3.5
45 - 49 ".....	11,959	3.6	12,286	3.6	12,144	3.5	1,052	0.3	1,043	0.3	976	0.3
50 years or over.....	5,563	1.7	5,205	1.5	5,507	1.6	13	--	13	--	18	--
Totals, Stated Ages..	332,187	100.0	337,872	100.0	342,287	100.0	332,273	100.0	339,809	100.0	343,805	100.0
Ages not stated.....	195	...	1,980	...	1,657	...	109	...	143	...	139	...
Totals, All Ages.....	332,382	100.0	339,852	100.0	343,944	100.0	332,382	100.0	339,952	100.0	343,944	100.0
Average Ages.....	32.1		32.1		32.1		28.4		28.4		28.4	

14.—Illegitimate Live Births, by Age of the Mother, 1947-50

(Exclusive of Newfoundland and the Territories)

Age Group	1947		1948		1949		1950	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 20 years.....	4,179	30.1	4,340	30.5	4,442	33.3	4,445	33.1
20 - 24 ".....	5,273	38.0	5,288	37.2	4,951	37.1	4,968	37.0
25 - 29 ".....	2,441	17.6	2,517	17.7	2,222	16.6	2,235	16.7
30 - 34 ".....	1,179	8.5	1,196	8.4	1,061	7.9	991	7.4
35 - 39 ".....	600	4.3	665	4.7	503	3.8	581	4.3
40 - 44 ".....	185	1.3	191	1.3	151	1.1	174	1.3
45 - 49 ".....	21	0.2	22	0.2	18	0.1	19	0.1
50 years or over.....	—	—	—	—	—	—	—	—
Totals, Stated Ages...	13,878	100.0	14,219	100.0	13,348	100.0	13,413	100.0
Ages not stated.....	660	...	706	...	558	...	550	...
Totals, All Ages.....	14,538	100.0	14,925	100.0	13,906	100.0	13,963	100.0
Average Ages of Mothers..	24.1		24.1		23.7		23.8	

15.—Stillbirths by Age of the Mother, together with Rates per 1,000 Live Births, 1947-50

(Exclusive of Newfoundland and the Territories)

Age Group	Stillbirths								Rates per 1,000 Live Births			
	1947		1948		1949		1950		1947	1948	1949	1950
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.				
Under 20 years.....	404	5.4	351	5.2	395	5.6	401	5.8	17.9	15.5	16.8	17.0
20 - 24 ".....	1,725	23.3	1,593	23.4	1,542	22.1	1,440	20.9	16.6	16.1	15.6	14.7
25 - 29 ".....	1,920	25.9	1,701	25.0	1,769	25.3	1,804	26.2	17.9	16.3	16.3	16.4
30 - 34 ".....	1,555	21.0	1,489	21.9	1,490	21.3	1,461	21.2	21.6	21.7	21.5	20.4
35 - 39 ".....	1,205	16.3	1,099	16.1	1,213	17.3	1,219	17.7	30.7	28.4	30.3	29.9
40 - 44 ".....	549	7.4	511	7.5	523	7.5	508	7.4	44.2	41.9	42.9	41.4
45 - 49 ".....	54	0.7	63	0.9	60	0.9	57	0.8	51.6	58.7	56.6	57.3
50 years or over.....	1	--	1	--	1	--	1	--	--	--	--	--
Totals, Stated Ages..	7,413	100.0	6,808	100.0	6,993	100.0	6,891	100.0	...	...	...	...
Ages not stated.....	48	...	41	...	59	...	64	...	...	...	...	...
Totals, All Ages.....	7,461	100.0	6,849	100.0	7,052	100.0	6,955	100.0	20.8	19.7	19.9	19.4
Average Ages of Mothers	29.8		29.9		30.0		30.1		...	...	...	...

Order of Birth.—Tables 16 and 17 show the order of birth of legitimate and illegitimate live-born children according to the age of the mother. In 1949 and 1950 the proportions of first-born children were 28 and 27 p.c., respectively, among legitimate live births, as compared with 30 p.c. in 1948, and 70 and 69 p.c., respectively, among illegitimate live births.

16.—Order of Birth of Legitimate Live-Born Children, by Age of Mother, 1949 and 1950

(Exclusive of Newfoundland and the Territories)

Order of Birth of Child	Age of Mother									
	Under 15 Years	15-19	20-24	25-29	30-34	35-39	40-44	45 Years or Over	Age Not Stated	All Ages
1949										
1st child.....	16	14,266	42,025	25,070	8,860	3,376	661	30	42	94,346
2nd ".....	1	4,007	31,311	33,142	15,489	5,534	998	50	36	90,568
3rd ".....	—	663	13,292	21,611	13,800	6,372	1,164	51	20	56,973
4th ".....	—	85	4,860	12,103	9,743	5,247	1,155	66	16	33,275
5th ".....	—	4	1,618	6,910	6,530	4,053	1,062	63	10	20,250
6th ".....	—	1	499	3,854	4,695	3,263	962	67	11	13,352
7th ".....	—	—	145	1,983	3,327	2,707	870	66	4	9,102
8th ".....	—	—	23	898	2,422	2,255	801	63	—	6,462
9th ".....	—	—	11	381	1,512	1,891	773	79	—	4,647
10th ".....	—	—	1	174	896	1,529	756	64	—	3,420
11th ".....	—	—	—	47	478	1,116	652	76	1	2,370
12th ".....	—	—	—	18	233	861	603	86	—	1,801
13th ".....	—	—	—	5	102	571	493	76	1	1,248
14th ".....	—	—	—	—	47	356	391	72	—	866
15th ".....	—	—	—	—	17	202	264	44	—	527
16th ".....	—	—	—	—	7	105	194	42	—	348
17th ".....	—	—	—	—	5	40	110	32	—	187
18th ".....	—	—	—	—	1	18	63	16	—	98
19th ".....	—	—	—	—	—	12	34	6	—	52
20th or over.....	—	—	—	—	1	5	30	6	—	42
Not stated.....	—	—	1	5	6	2	1	1	2	18
Totals.....	17	19,026	93,786	106,201	68,171	39,515	12,037	1,056	143	339,952
1950										
1st child.....	15	14,251	41,018	24,330	8,558	3,086	677	37	46	92,018
2nd ".....	—	4,084	30,486	33,151	15,736	5,766	972	35	35	90,265
3rd ".....	—	758	13,925	22,657	14,676	6,661	1,170	54	28	59,929
4th ".....	—	76	5,115	12,890	10,165	5,592	1,252	52	12	35,154
5th ".....	—	9	1,768	7,156	7,110	4,262	1,115	63	10	21,493
6th ".....	—	3	535	4,040	4,907	3,294	926	65	5	13,775
7th ".....	—	—	147	2,021	3,455	2,723	895	61	2	9,306
8th ".....	—	2	32	940	2,413	2,316	804	67	1	6,573
9th ".....	—	—	9	354	1,540	1,897	776	61	—	4,637
10th ".....	—	—	5	133	984	1,575	719	71	—	3,487
11th ".....	—	—	—	52	451	1,105	661	63	—	2,362
12th ".....	—	—	1	16	254	812	603	73	—	1,759
13th ".....	—	—	—	6	124	533	447	72	—	1,182
14th ".....	—	—	—	4	41	292	377	77	—	791
15th ".....	—	—	—	2	21	170	278	49	—	520
16th ".....	—	—	—	—	11	81	164	34	—	290
17th ".....	—	—	—	—	2	50	136	28	—	216
18th ".....	—	—	—	—	—	21	55	11	—	87
19th ".....	—	—	—	—	—	7	34	11	—	52
20th or over.....	—	—	—	—	—	1	33	10	—	44
Not stated.....	—	—	1	1	—	2	—	—	—	4
Totals.....	15	19,183	93,042	107,753	70,478	40,246	12,094	994	139	343,944

17.—Order of Birth of Illegitimate Live-Born Children, by Age of Mother, 1949 and 1950

(Exclusive of Newfoundland and the Territories)

Order of Birth of Child	Age of Mother									All Ages
	Under 15 Years	15-19	20-24	25-29	30-34	35-39	40-44	45 Years or Over	Age Not Stated	
1945										
1st child.....	82	3,925	3,504	1,125	413	152	43	2	530	9,776
2nd ".....	2	390	944	442	177	68	13	1	14	2,051
3rd ".....	—	38	330	264	118	43	12	—	2	807
4th ".....	—	5	110	163	81	41	7	3	2	412
5th ".....	—	—	48	103	89	33	21	1	1	296
6th ".....	—	—	11	71	53	34	11	—	1	181
7th ".....	—	—	1	35	55	40	8	2	—	141
8th ".....	—	—	1	10	34	33	5	1	—	84
9th ".....	—	—	—	6	23	18	10	—	—	57
10th ".....	—	—	—	1	11	20	7	1	—	40
11th ".....	—	—	—	1	4	9	3	4	—	21
12th ".....	—	—	—	—	2	6	5	1	—	14
13th ".....	—	—	—	—	—	5	2	1	—	8
14th ".....	—	—	—	—	—	—	1	1	—	2
15th ".....	—	—	—	—	—	—	1	—	—	1
16th ".....	—	—	—	—	—	1	—	—	—	1
17th ".....	—	—	—	—	—	—	2	—	—	2
18th ".....	—	—	—	—	1	—	—	—	—	1
19th ".....	—	—	—	—	—	—	—	—	—	—
20th or over.....	—	—	—	—	—	—	—	—	—	—
Not stated.....	—	—	2	1	—	—	—	—	8	11
Totals.....	84	4,358	4,951	2,222	1,061	503	151	18	558	13,906
1950										
1st child.....	79	3,909	3,498	1,076	399	168	49	4	503	9,685
2nd ".....	—	400	984	458	158	83	14	—	32	2,129
3rd ".....	—	51	308	280	116	56	14	—	4	829
4th ".....	—	5	129	187	79	51	13	1	3	468
5th ".....	—	—	41	112	66	50	17	1	2	289
6th ".....	—	—	8	75	50	35	9	—	—	177
7th ".....	—	—	—	27	45	34	10	6	1	123
8th ".....	—	—	—	10	36	32	16	4	1	99
9th ".....	—	—	—	6	21	23	11	1	—	62
10th ".....	—	—	—	3	16	16	6	—	1	42
11th ".....	—	—	—	—	3	15	6	1	—	25
12th ".....	—	—	—	1	1	10	2	—	—	14
13th ".....	—	—	—	—	—	5	4	1	—	10
14th ".....	—	—	—	—	—	—	3	—	—	3
15th ".....	—	—	—	—	1	—	—	—	—	1
16th ".....	—	—	—	—	—	3	—	—	—	3
17th ".....	—	—	—	—	—	—	—	—	—	—
18th ".....	—	—	—	—	—	—	—	—	—	—
19th ".....	—	—	—	—	—	—	—	—	—	—
20th or over.....	—	—	—	—	—	—	—	—	—	—
Not stated.....	—	1	—	—	—	—	—	—	3	4
Totals.....	79	4,366	4,968	2,235	991	581	174	19	550	13,963

Birthplaces of Parents.—Table 18 shows the numbers and percentages of children whose parents were born in Canada and other countries. With increased immigration in recent years there are indications that the proportions of children born to foreign-born parents are increasing.

18.—Live Births, by Nativity of Parents, 1947-50

Country of Birth of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
Canada (exclusive of Newfoundland and the Territories) 1947	307,293	317,762	278,810	85.6	88.5	77.6
1948	297,939	311,661	274,454	85.8	89.7	79.0
1949	302,457	317,955	280,734	85.5	89.9	79.3
1950	307,088	323,739	287,866	85.8	90.5	80.4
Commonwealth (other than Canada) 1947	16,814	24,725	2,511	4.7	6.9	0.7
1948	15,100	19,510	2,443	4.3	5.6	0.7
1949	14,811	18,099	2,701	4.2	5.1	0.8
1950	12,833	14,826	2,079	3.6	4.1	0.6
United States..... 1947	7,217	6,631	811	2.0	1.8	0.2
1948	6,658	6,433	739	1.9	1.9	0.2
1949	6,389	6,221	740	1.8	1.8	0.2
1950	6,142	5,916	709	1.7	1.7	0.2
Other foreign countries..... 1947	13,107	9,434	3,318	3.7	2.6	0.9
1948	12,425	9,127	3,408	3.6	2.6	1.0
1949	13,988	10,786	4,753	4.0	3.0	1.3
1950	16,060	12,623	6,566	4.5	3.5	1.8
Unspecified..... 1947	14,663	542	21	4.1	0.2	--
1948	15,185	576	27	4.4	0.2	--
1949	16,213	797	103	4.6	0.2	--
1950	15,784	803	94	4.4	0.2	--
Totals..... 1947	359,094	359,094	285,471¹	100.0	100.0	79.5¹
1948	347,307	347,307	281,071 ¹	100.0	100.0	80.9 ¹
1949	353,858	353,858	289,031 ¹	100.0	100.0	81.7 ¹
1950	357,907	357,907	297,314 ¹	100.0	100.0	83.1 ¹

¹ These figures or percentages are of the children whose fathers and mothers were born in the same country. The difference between this figure and the total number of births represents the number of children whose parents were born in different countries.

Ethnic Origins of Parents.—A person's origin is usually traced through the father. For example, if the father is English and the mother French, the person's origin is said to be English. Illegitimate children, however, are usually classified by the origin of their mother, since the particulars of the father are seldom known.

Table 19 shows that about 60 p.c. of Canadian children are born to parents who are of the same ethnic origin.

19.—Live Births to Parents of Specified Origins, 1947-50

(Exclusive of Newfoundland and the Territories)

Origin of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
English..... 1947	78,247	86,078	45,109	21.8	24.0	12.6
1948	72,612	78,991	41,207	20.9	22.7	11.9
1949	73,241	79,578	41,659	20.7	22.5	11.8
1950	72,643	78,643	40,876	20.8	22.0	11.4
Irish..... 1947	36,003	35,567	10,742	10.0	9.9	3.0
1948	33,737	33,762	10,187	9.7	9.7	2.9
1949	34,137	34,204	10,385	9.6	9.7	2.9
1950	34,242	34,488	10,444	9.6	9.6	2.9
Scottish..... 1947	38,029	38,110	11,852	10.6	10.6	3.3
1948	35,654	35,840	11,083	10.3	10.3	3.2
1949	36,050	35,933	11,301	10.2	10.2	3.2
1950	35,599	35,625	11,073	9.9	10.0	3.1

19.—Live Births to Parents of Specified Origins, 1947-50—concluded

Origin of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
French.....1947	128,853	133,000	116,410	35.9	37.0	32.4
1948	128,226	133,086	116,531	36.9	38.3	33.6
1949	129,366	134,575	117,589	36.6	38.0	33.2
1950	131,457	136,625	119,390	36.7	38.2	33.4
Other.....1947	63,224	65,673	30,692	17.6	18.3	8.5
1948	61,894	64,960	30,212	17.8	18.7	8.7
1949	65,188	68,816	32,550	18.4	19.4	9.2
1950	68,540	71,918	34,763	19.2	20.1	9.7
Unspecified.....1947	14,738	666	62	4.1	0.2	--
1948	15,184	668	77	4.4	0.2	--
1949	15,876	752	112	4.5	0.2	--
1950	15,426	608	46	4.3	0.2	--
Totals.....1947	359,094	359,094	214,867¹	100.0	100.0	59.8¹
1948	347,307	347,307	209,297 ¹	100.0	100.0	60.3 ¹
1949	353,858	353,858	213,596 ¹	100.0	100.0	60.4 ¹
1950	357,907	357,907	216,592 ¹	100.0	100.0	60.5 ¹

¹ These figures or percentages are of children whose fathers and mothers are of the same origin. The difference between this figure and the total number of births represents the number of children whose parents are of different origins.

Section 3.—Deaths

Declines in the death rate have been recorded in many countries during the past twenty years. Crude death rates should be used with caution in comparing the mortality levels of different populations, for they are affected by differences in the age composition of the population as well as by differences in the levels of mortality.

Subsection 1.—General Mortality

International Comparisons.—A comparison of the death rates in Canada and the provinces with those of other countries is shown in Table 20. It will be noted that the Canadian death rate is among the lowest in the world and that half the provinces have lower rates than most other countries.

20.—Death Rates per 1,000 Population of Various Countries compared with Canada and the Provinces, 1950

(Source: *Monthly Bulletin of Statistics of the United Nations* and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Death Rate	Country	Death Rate	Country	Death Rate
Netherlands.....	7.5	Norway.....	9.1	Czechoslovakia.....	11.4
Canada.....	9.0	Union of South Africa		Northern Ireland.....	11.5 ¹
Alberta.....	7.5	(White).....	9.1	England and Wales.....	11.6
Saskatchewan.....	7.5	Denmark.....	9.2	Peru.....	11.8
Quebec.....	8.4	New Zealand.....	9.3	Portugal.....	12.1
Manitoba.....	8.6	Australia.....	9.6	Austria.....	12.4
Newfoundland.....	9.0	United States.....	9.6	Belgium.....	12.4
Prince Edward Island.	9.4	Italy.....	9.8	Scotland.....	12.4
Nova Scotia.....	9.5	Sweden.....	10.0	Ceylon.....	12.6
New Brunswick.....	9.6	Finland.....	10.1	France ²	12.6
Ontario.....	9.8	Switzerland.....	10.1	Ireland.....	12.6
British Columbia.....	10.2	Western Germany.....	10.4	Chile.....	15.7
		Spain.....	10.8	Mexico.....	16.4
		Venezuela.....	11.0	India ³	16.7
		Japan.....	11.0		

¹ 1949.
tion area only.

² Excluding infants born alive who died before registration of birth.

³ Registration area only.

Canadian Mortality.—Since 1931, the Canadian death rate has fluctuated between 10.3 and 9.3 per 1,000 of the population, declining slightly in recent years and reaching a record low of 9.0 in 1950. This decline has been apparent in all provinces but in varying degrees. The generally low rates in the Prairie Provinces are partly due to their younger average population while the relatively uniform rate in British Columbia is due to the increasing proportion of people in the older age groups.

Table 21 shows that throughout the provinces, with one exception (Prince Edward Island for 1948), the rates are higher for males than for females and that for Canada as a whole they are about 25 p.c. higher.

21.—Deaths and Death Rates per 1,000 Population, by Sex and by Provinces, 1947-50, with Averages, 1941-45

Province and Year	Total Deaths	Rate per 1,000 Population	Males		Females	
			Number of Deaths	Rate per 1,000 Males	Number of Deaths	Rate per 1,000 Females
Newfoundland.....Av. 1941-45	3,681	11.8	1,953	11.9	1,728	11.0
1947	3,325	9.9	1,763	10.3	1,562	9.6
1948	3,108	9.0	1,686	9.7	1,422	8.6
1949	2,868	8.2	1,596	9.0	1,272	7.5
1950	3,168	9.0	1,774	9.8	1,394	8.0
Prince Edward Island.....Av. 1941-45	964	10.5	509	10.7	455	10.3
1947	1,020	10.9	543	11.3	477	10.4
1948	887	9.5	455	9.5	432	9.6
1949	924	9.8	531	10.9	393	8.7
1950	903	9.4	464	9.4	439	9.4
Nova Scotia.....Av. 1941-45	6,326	10.5	3,455	11.2	2,871	9.8
1947	6,009	9.7	3,287	10.4	2,722	8.9
1948	6,097	9.6	3,331	10.3	2,766	8.9
1949	5,980	9.3	3,321	10.2	2,659	8.4
1950	6,078	9.5	3,396	10.2	2,682	8.3
New Brunswick.....Av. 1941-45	5,050	10.9	2,726	11.5	2,324	10.3
1947	4,832	9.8	2,696	10.8	2,136	8.8
1948	4,959	9.9	2,668	10.4	2,291	9.3
1949	4,876	9.4	2,672	10.2	2,204	8.7
1950	4,895	9.6	2,690	10.2	2,205	8.6
Quebec.....Av. 1941-45	34,273	9.9	18,413	10.6	15,861	9.2
1947	33,708	9.1	18,566	10.0	15,142	8.2
1948	33,603	8.9	18,353	9.7	15,245	8.1
1949	34,107	8.8	18,708	9.6	15,399	7.9
1950	33,507	8.4	18,396	9.2	15,111	7.6
Ontario.....Av. 1941-45	39,738	10.2	21,650	10.9	18,088	9.4
1947	41,619	9.9	22,891	10.8	18,728	9.0
1948	42,364	9.9	23,394	10.8	18,970	8.9
1949	43,379	9.8	24,123	10.8	19,256	8.8
1950	43,948	9.8	24,502	10.7	19,446	8.7
Manitoba.....Av. 1941-45	6,683	9.1	3,817	10.1	2,816	8.0
1947	6,750	9.1	3,924	10.3	2,826	7.8
1948	6,675	8.8	3,900	10.1	2,776	7.5
1949	6,919	8.9	4,008	10.1	2,911	7.6
1950	6,610	8.6	3,904	9.6	2,706	7.0
Saskatchewan.....Av. 1941-45	6,437	7.5	3,835	8.4	2,602	6.6
1947	6,610	7.9	3,989	8.9	2,621	6.6
1948	6,496	7.6	4,012	8.9	2,484	6.2
1949	6,596	7.7	3,962	8.7	2,634	6.5
1950	6,243	7.5	3,821	8.3	2,422	5.9

21.—Deaths and Death Rates per 1,000 Population, by Sex and by Provinces, 1947-50, with Averages, 1941-45—concluded

Province and Year	Total Deaths	Rate per 1,000 Population	Males		Females	
			Number of Deaths	Rate per 1,000 Males	Number of Deaths	Rate per 1,000 Females
Alberta.....Av. 1941-45 ¹	6,355	7.9	3,864	9.0	2,491	6.7
1947	6,543	8.0	3,916	9.0	2,627	6.8
1948	6,987	8.3	4,254	9.6	2,733	6.8
1949	7,083	8.1	4,350	9.5	2,733	6.6
1950	6,856	7.5	4,189	8.9	2,667	6.3
British Columbia.. .....Av. 1941-45 ¹	9,368	10.5	5,841	12.5	3,527	8.3
1947	10,613	10.2	6,626	12.2	3,987	7.9
1948	11,316	10.5	7,055	12.5	4,261	8.2
1949	11,315	10.2	7,100	12.3	4,215	7.9
1950	11,581	10.2	7,204	12.2	4,377	8.0
Canada ¹ (Exclusive of the Territories). Av. 1941-45 ¹	115,144	9.8	64,108	10.6	51,035	8.9
1947	117,704	9.4	66,438	10.4	51,266	8.3
1948	119,384	9.3	67,427	10.3	51,957	8.2
1949	124,047	9.2	70,371	10.2	53,676	8.1
1950	123,789	9.0	70,340	10.0	53,449	7.9

¹ Figures for Newfoundland are not included in these totals except for the years 1949 and 1950.

Deaths in Urban Centres.—In Table 22 deaths are classified by place of residence. The rates in urban centres vary only slightly from those of their respective provinces. However, due to the influx of young people from the rural areas, the age distribution of the population in urban centres is often more favourable to a low death rate than that of the province as a whole.

22.—Deaths in Urban Centres of 10,000 Population or Over,¹ 1947-50, with Averages, 1941-45

Province and Urban Centre	Census Population, 1941	Deaths				
		Average, 1941-45	1947	1948	1949	1950
	No.	No.	No.	No.	No.	No.
Newfoundland—						
St. John's.....	44,603 ²	3	477	475	462	441
Prince Edward Island—						
Charlottetown.....	14,821	202	219	218	242	184
Nova Scotia—						
Dartmouth.....	10,847	120	86	122	133	98
Glace Bay.....	25,147	231	208	250	231	207
Halifax.....	70,488	786	757	748	694	771
Sydney.....	28,305	306	303	299	312	294
Truro.....	10,272	107	96	84	104	123
New Brunswick—						
Fredericton.....	10,062	121	139	146	154	146
Moncton.....	22,763	223	201	221	216	233
Saint John.....	51,741	645	662	617	668	617
Quebec—						
Cap-de-la-Madeleine.....	11,961	97	112	100	128	119
Chicoutimi.....	16,040	184	220	198	190	177
Drummondville.....	10,555	91	102	100	107	106
Granby.....	14,197	132	150	145	164	154
Hull.....	32,947	355	346	356	357	355
Joliette.....	12,749	157	152	180	148	158
Jonquière.....	13,769	157	153	146	137	148
Lachine.....	20,051	230	210	184	207	233
Lévis.....	11,991	125	133	135	128	121
Montreal.....	903,007	9,885	9,696	9,898	10,106	9,898
Outremont.....	30,751	287	296	272	273	262
Quebec.....	150,757	1,899	1,809	1,669	1,673	1,567
St. Hyacinthe.....	17,798	256	264	239	240	257

¹ As at the 1941 Census.

² 1945 Census of Newfoundland.

³ Not available for one year

of the period.

**22.—Deaths in Urban Centres of 10,000 Population or Over,¹ 1947-50, with
Averages, 1941-45—concluded**

Province and Urban Centre	Census Population, 1941	Deaths				
		Average, 1941-45	1947	1948	1949	1950
	No.	No.	No.	No.	No.	No.
Quebec—concluded						
St. Jean.....	13,646	136	154	158	129	133
St. Jérôme.....	11,329	118	125	135	123	150
Shawinigan Falls.....	20,325	176	173	202	165	186
Sherbrooke.....	35,965	381	456	417	439	445
Sorel.....	12,251	168	166	155	156	123
Thetford Mines.....	12,716	148	157	135	136	139
Three Rivers.....	42,007	414	378	411	433	440
Valleyfield.....	17,052	184	169	165	170	173
Verdun.....	67,349	532	596	566	562	581
Westmount.....	26,047	275	275	307	311	298
Ontario—						
Belleville.....	15,710	178	195	190	194	237
Brantford.....	31,948	419	408	391	429	423
Brockville.....	11,342	158	163	162	147	155
Chatham.....	17,369	219	202	212	216	244
Cornwall.....	14,117	204	193	179	178	173
Forest Hill.....	11,757	62	96	100	95	102
Fort William.....	30,585	244	284	276	300	345
Galt.....	15,346	172	166	178	199	216
Guelph.....	23,273	271	245	277	300	299
Hamilton.....	166,337	1,769	1,776	1,891	1,892	1,991
Kingston.....	30,126	377	366	383	417	418
Kitchener.....	35,657	331	329	361	370	422
London.....	78,264	930	1,033	939	961	1,112
Niagara Falls.....	20,589	217	235	262	258	225
North Bay.....	15,599	141	179	199	182	168
Oshawa.....	26,813	268	266	286	251	274
Ottawa.....	154,951	1,718	1,759	1,663	1,719	1,951
Owen Sound.....	14,002	185	199	167	166	171
Pembroke.....	11,159	127	138	126	143	147
Peterborough.....	25,350	317	348	361	386	373
Port Arthur.....	24,426	250	311	316	297	326
St. Catharines.....	30,275	314	372	338	320	355
St. Thomas.....	17,132	237	240	249	239	256
Sarnia.....	18,734	219	234	232	230	219
Sault Ste. Marie.....	25,794	252	269	277	327	295
Stratford.....	17,038	209	218	253	240	257
Sudbury.....	32,203	268	284	315	322	305
Timmins.....	28,790	181	199	198	205	220
Toronto.....	667,457	7,534	7,753	7,840	7,874	7,749
Welland.....	12,500	123	138	145	113	138
Windsor.....	105,311	953	1,020	1,025	1,132	1,045
Woodstock.....	12,461	174	165	157	167	162
Manitoba—						
Brandon.....	17,383	165	208	179	203	204
St. Boniface.....	18,157	187	180	169	181	188
Winnipeg.....	221,960	2,155	2,285	2,244	2,320	2,238
Saskatchewan—						
Moose Jaw.....	20,753	212	246	271	257	196
Prince Albert.....	12,508	114	146	144	136	129
Regina.....	58,245	439	514	461	501	492
Saskatoon.....	43,027	353	430	429	434	446
Alberta—						
Calgary.....	88,904	878	1,038	1,139	1,141	1,154
Edmonton.....	93,817	830	953	1,038	990	1,183
Lethbridge.....	14,612	144	146	188	175	173
Medicine Hat.....	10,571	123	130	142	158	131
British Columbia—						
New Westminster.....	21,967	233	261	263	261	247
Vancouver.....	275,353	3,377	3,768	3,984	3,980	4,143
Victoria.....	44,068	688	748	773	737	747

¹ As at the 1941 Census.

Sex and Age Distribution of Deaths.—Despite reductions in infant mortality, more deaths still occur in the first year of life than in any other single year. The number of children dying under five years of age was reduced from an average of 25,174 in 1930-32 to 17,949 in 1940-42. In 1949 and 1950 the numbers were 18,595 and 17,841, respectively, as compared with 17,899 in 1948. For both males and females the greatest number of deaths occur in the age group 70-79, the next highest being 60-69 years for males and 80-89 years for females.

The percentage distribution of deaths has changed greatly since 1930-32. The percentages of deaths at all ages up to 50 years have declined and the average age at death has gradually risen. The reduction in mortality rates in the early and middle years of life increases the number of people in the older age groups and will eventually raise the average age of the population as a whole. In 1931, 16.6 p.c. of the population was 50 years of age or over and the average age of all males was 29.0 years and of all females 28.1 years. In 1941, 19.7 p.c. of the population was 50 years of age or over, and the average age of all males had risen to 30.7 years and of all females to 30.2 years. The average age at death for males in 1926 was 40.0 years and for females 41.9 years; these have risen to 55.7 and 58.1, respectively, in 1950. Compared with most European countries, however, the population of Canada is still young.

23.—Deaths, by Sex and Age Groups, 1948-50

(Exclusive of the Territories)

Age Group	Males						Females					
	1948 ¹		1949		1950		1948 ¹		1949		1950	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 1 year.....	8,654	12.8	9,075	12.9	8,773	12.5	6,510	12.5	6,768	12.6	6,551	12.3
1 year.....	712	1.1	654	0.9	608	0.9	592	1.1	614	1.1	482	0.9
2 years.....	336	0.5	358	0.5	340	0.5	277	0.5	296	0.6	248	0.5
3 ".....	265	0.4	273	0.4	288	0.4	183	0.4	197	0.4	212	0.4
4 ".....	209	0.3	197	0.3	181	0.3	161	0.3	163	0.3	158	0.3
Totals, under 5 Years of Age.....	10,176	15.1	10,557	15.0	10,190	14.5	7,723	14.9	8,038	15.0	7,651	14.3
5 - 9 years.....	686	1.0	684	1.0	678	1.0	423	0.8	490	0.9	446	0.8
10 - 14 ".....	479	0.7	517	0.7	469	0.7	328	0.6	341	0.6	321	0.6
15 - 19 ".....	800	1.2	846	1.2	730	1.0	541	1.0	517	1.0	428	0.8
20 - 24 ".....	1,122	1.7	1,065	1.5	943	1.3	761	1.5	706	1.3	572	1.1
25 - 29 ".....	1,011	1.5	1,036	1.5	906	1.3	799	1.5	781	1.5	673	1.3
30 - 34 ".....	1,031	1.5	1,072	1.5	949	1.4	876	1.7	856	1.6	737	1.4
35 - 39 ".....	1,368	2.0	1,339	1.9	1,261	1.8	1,102	2.1	1,042	1.9	1,067	2.0
40 - 44 ".....	1,712	2.6	1,733	2.5	1,724	2.5	1,260	2.4	1,263	2.4	1,305	2.4
45 - 49 ".....	2,391	3.5	2,517	3.6	2,475	3.5	1,608	3.1	1,635	3.0	1,635	3.1
50 - 54 ".....	3,299	4.9	3,357	4.8	3,370	4.8	2,172	4.2	2,177	4.1	2,094	3.9
55 - 59 ".....	4,605	6.8	4,556	6.5	4,600	6.5	2,894	5.6	2,776	5.2	2,778	5.2
60 - 64 ".....	6,258	9.3	6,564	9.3	6,561	9.3	3,787	7.3	3,947	7.4	3,841	7.2
65 - 69 ".....	7,225	10.7	7,747	11.0	7,994	11.4	4,687	9.0	4,948	9.2	5,191	9.7
70 - 74 ".....	7,768	11.5	8,376	11.9	8,476	12.1	5,731	11.0	6,223	11.6	6,273	11.7
75 - 79 ".....	7,190	10.7	7,394	10.5	7,792	11.1	6,091	11.7	6,392	11.9	6,414	12.0
80 - 89 ".....	8,846	13.1	9,476	13.5	9,700	13.8	9,263	17.8	9,459	17.6	9,834	18.4
90 years or over.....	1,395	2.1	1,502	2.1	1,468	2.1	1,894	3.6	2,072	3.9	2,175	4.1
Totals, Stated Ages..	67,392	100.0	70,338	100.0	70,286	100.0	51,940	100.0	53,663	100.0	53,435	100.0
Ages not stated.....	35	--	33	--	54	--	17	--	13	--	14	--
Totals, All Ages.....	67,427	100.0	70,371	100.0	70,340	100.0	51,957	100.0	53,676	100.0	53,449	100.0

¹ Exclusive of Newfoundland.

Causes of Death.—Table 24 shows the deaths in Canada, grouped according to the International Abbreviated List of 50 causes. About 80 p.c. are due to the following groups of causes: diseases of the heart and arteries, cancer, accidents, diseases of early infancy, the respiratory diseases—tuberculosis, pneumonia and influenza—and nephritis.

The rise in the average age at death has been noted above. Causes of death that affect children and young adults mainly have declined. Diphtheria, for example, has been almost wiped out and tuberculosis has been greatly reduced. On the other hand, the ageing of the population increases the proportion of deaths from certain causes that affect older people. Thus, cancer and the diseases of the cardio-vascular-renal systems now account for a substantially larger proportion of all deaths than formerly.

24.—Deaths and Rates per 100,000 Population, according to the International Abbreviated List of 50 Causes, by Provinces, 1950

NOTE.—Deaths for 1950 were classified according to the 1948 (6th.) Revision of the International List of Causes of Death, while those for previous years were classified according to earlier revisions of the List. The cause groups shown below are therefore not strictly comparable with those shown in previous issues of the Year Book.

International List No.		Cause of Death											
Detailed List		NUMBER OF DEATHS											
Abbreviated List		Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada	
B 1	001-008	189	25	141	131	1,315	536	144	114	135	271	3,001	
B 2	010-019	58	4	35	28	256	49	35	39	36	42	582	
B 3	020-029	7	2	23	8	129	111	13	12	27	37	369	
B 4	040	1	—	2	2	12	1	1	1	1	1	22	
B 5	043	—	—	—	—	—	—	—	—	—	—	—	
B 6	045-048	6	—	2	2	17	17	4	4	1	5	58	
B 7	050, 051	2	1	1	—	19	19	2	3	11	4	62	
B 8	055	3	1	1	1	29	8	2	3	52	3	62	
B 9	056	49	8	20	22	135	41	15	3	3	10	306	
B 10	057	3	—	6	9	28	18	6	4	—	2	76	
B 11	058	—	—	—	—	—	—	—	—	—	—	—	
B 12	060	—	4	—	—	8	9	1	9	8	2	41	
B 13	080	—	—	—	—	—	—	—	—	—	—	—	
B 14	085	6	—	5	6	81	36	9	5	8	17	173	
B 15	100-108	—	—	—	—	—	—	—	—	—	—	—	
B 16	110-117	—	—	—	—	—	—	—	—	—	—	—	
B 17	032-054 059-074 081-083 086-096 120-138 140-205	6	3	14	7	101	95	11	22	25	29	313	
B 18	(140-200, 202, 203, 205) (201) (204) 210-239 280 290-293	363	103	875	587	4,530	6,317	990	977	997	1,729	17,478	
B 19		349	101	839	555	4,563	5,983	938	918	936	1,648	16,623	
B 20		5	—	6	11	37	100	14	15	17	16	219	
B 21		11	2	50	31	137	234	33	44	44	65	636	
		9	—	14	10	71	111	18	21	36	32	322	
		18	1	74	40	491	562	68	81	92	127	1,544	
		10	2	28	32	124	163	22	26	20	39	496	

24.—Deaths and Rates per 100,000 Population, according to the International Abbreviated List of 50 Causes, by Provinces, 1950—concluded

International List No.		Cause of Death	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
Abbreviated List	Detailed List												
RATES PER 100,000 POPULATION													
B 1	001-008	Tuberculosis of respiratory system.....	53.8	26.0	22.1	25.6	33.1	12.0	18.8	13.7	14.8	23.8	21.9
B 2	010-019	Tuberculosis, other forms.....	16.5	4.2	5.5	5.5	6.4	1.1	4.6	4.7	3.9	3.7	4.3
B 3	020-029	Syphilis and its sequelae.....	2.0	2.1	3.6	1.6	3.3	2.5	1.7	1.4	3.0	3.3	2.7
B 4	040	Typhoid fever.....	0.3	—	0.3	0.4	0.3	—	0.1	0.1	0.1	0.1	0.2
B 5	043	Cholera.....	—	—	—	—	—	—	—	—	—	—	—
B 6	045-048	Dysentery, all forms.....	1.7	—	0.3	0.4	0.4	0.4	0.5	0.5	0.1	0.4	0.4
B 7	050, 051	Scarlet fever, and streptococcal sore throat.....	0.6	1.0	0.2	—	0.5	0.4	0.3	0.4	1.2	0.4	0.5
B 8	055	Diphtheria.....	0.9	1.0	0.2	0.2	0.7	0.2	0.3	0.4	0.1	0.3	0.4
B 9	056	Whooping cough.....	14.0	8.3	3.1	4.3	3.4	0.9	2.0	0.4	0.3	0.9	2.2
B 10	057	Meningococcal infections.....	0.9	—	0.9	1.8	0.7	0.4	0.8	0.5	—	0.2	0.6
B 11	058	Plague.....	—	—	—	—	—	—	—	—	—	—	—
B 12	080	Acute poliomyelitis.....	—	4.2	—	—	0.2	0.2	0.1	1.1	0.9	0.2	0.3
B 13	084	Smallpox.....	—	—	—	—	—	—	—	—	—	—	—
B 14	085	Measles.....	1.7	—	0.8	1.2	2.0	0.8	1.2	0.6	0.9	1.5	1.3
B 15	100-108	Typhus and other rickettsial diseases.....	—	—	—	—	—	—	—	—	—	—	—
B 16	110-117	Malaria.....	—	—	—	—	—	—	—	—	—	—	—
B 17	030-039 041, 042 044, 049 052-054 059-074 081-083 086-096 120-138 140-205	All other diseases classified as infective and parasitic.....	1.7	3.1	2.2	1.4	2.5	2.1	1.4	2.6	2.7	2.6	2.3
B 18	(140-200, 202, 203, 205) (201) (204) 210-239 260 290-293 330-334	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues, Cancer, excluding Hodgkin's disease, leukemia and aleukemia..... Hodgkin's disease..... Leukemia and aleukemia..... Benign and unspecified neoplasms..... Diabetes mellitus..... Anemias..... Vascular lesions affecting central nervous system.....	103.4 99.4 0.9 3.1 2.6 5.1 2.8	107.3 105.2 2.1 — 1.0 2.1	137.1 131.5 0.9 4.7 2.2 11.6 4.4	116.6 108.4 2.1 2.0 7.8 6.3	114.1 109.8 0.9 5.5 1.8 12.4 3.1	141.3 133.8 2.3 5.2 2.5 12.3 4.3	128.9 122.1 4.9 2.3 8.9 2.9	117.3 110.2 1.8 5.3 2.5 9.7 3.1	109.2 102.5 1.9 4.8 3.9 10.1 2.2	152.1 144.9 1.4 5.7 2.8 11.2 3.4	127.7 121.4 1.6 4.6 2.4 11.3 3.6
B 19	340	Nonmeningococcal meningitis.....	67.5	128.1	108.5	85.7	52.6	125.6	97.5	76.6	76.2	105.0	91.1
B 20	400-402	Rheumatic fever.....	6.8	4.2	2.8	4.7	4.3	1.2	1.7	1.1	1.5	1.8	2.6
B 21	410-416	Chronic rheumatic heart disease.....	0.6	2.1	1.4	2.3	2.8	0.6	1.8	1.2	1.3	1.7	1.6
B 22			5.1	14.6	13.3	8.8	11.5	12.6	12.6	13.7	10.5	18.0	12.4

	420-422	423-424	425-426	427-428	429-430	431-432	433-434	435-436	437-438	439-440	441-442	443-444	445-446	447-448	449-450	451-452	453-454	455-456	457-458	459-460	461-462	463-464	465-466	467-468	469-470	471-472	473-474	475-476	477-478	479-480	481-482	483-484	485-486	487-488	489-490	491-492	493-494	495-496	497-498	499-500	501-502	503-504	505-506	507-508	509-510	511-512	513-514	515-516	517-518	519-520	521-522	523-524	525-526	527-528	529-530	531-532	533-534	535-536	537-538	539-540	541-542	543-544	545-546	547-548	549-550	551-552	553-554	555-556	557-558	559-560	561-562	563-564	565-566	567-568	569-570	571-572	573-574	575-576	577-578	579-580	581-582	583-584	585-586	587-588	589-590	591-592	593-594	595-596	597-598	599-600	601-602	603-604	605-606	607-608	609-610	611-612	613-614	615-616	617-618	619-620	621-622	623-624	625-626	627-628	629-630	631-632	633-634	635-636	637-638	639-640	641-642	643-644	645-646	647-648	649-650	651-652	653-654	655-656	657-658	659-660	661-662	663-664	665-666	667-668	669-670	671-672	673-674	675-676	677-678	679-680	681-682	683-684	685-686	687-688	689-690	691-692	693-694	695-696	697-698	699-700	701-702	703-704	705-706	707-708	709-710	711-712	713-714	715-716	717-718	719-720	721-722	723-724	725-726	727-728	729-730	731-732	733-734	735-736	737-738	739-740	741-742	743-744	745-746	747-748	749-750	751-752	753-754	755-756	757-758	759-760	761-762	763-764	765-766	767-768	769-770	771-772	773-774	775-776	777-778	779-780	781-782	783-784	785-786	787-788	789-790	791-792	793-794	795-796	797-798	799-800	801-802	803-804	805-806	807-808	809-810	811-812	813-814	815-816	817-818	819-820	821-822	823-824	825-826	827-828	829-830	831-832	833-834	835-836	837-838	839-840	841-842	843-844	845-846	847-848	849-850	851-852	853-854	855-856	857-858	859-860	861-862	863-864	865-866	867-868	869-870	871-872	873-874	875-876	877-878	879-880	881-882	883-884	885-886	887-888	889-890	891-892	893-894	895-896	897-898	899-900	901-902	903-904	905-906	907-908	909-910	911-912	913-914	915-916	917-918	919-920	921-922	923-924	925-926	927-928	929-930	931-932	933-934	935-936	937-938	939-940	941-942	943-944	945-946	947-948	949-950	951-952	953-954	955-956	957-958	959-960	961-962	963-964	965-966	967-968	969-970	971-972	973-974	975-976	977-978	979-980	981-982	983-984	985-986	987-988	989-990	991-992	993-994	995-996	997-998	999-1000	1001-1002	1003-1004	1005-1006	1007-1008	1009-1010	1011-1012	1013-1014	1015-1016	1017-1018	1019-1020	1021-1022	1023-1024	1025-1026	1027-1028	1029-1030	1031-1032	1033-1034	1035-1036	1037-1038	1039-1040	1041-1042	1043-1044	1045-1046	1047-1048	1049-1050	1051-1052	1053-1054	1055-1056	1057-1058	1059-1060	1061-1062	1063-1064	1065-1066	1067-1068	1069-1070	1071-1072	1073-1074	1075-1076	1077-1078	1079-1080	1081-1082	1083-1084	1085-1086	1087-1088	1089-1090	1091-1092	1093-1094	1095-1096	1097-1098	1099-1100	1101-1102	1103-1104	1105-1106	1107-1108	1109-1110	1111-1112	1113-1114	1115-1116	1117-1118	1119-1120	1121-1122	1123-1124	1125-1126	1127-1128	1129-1130	1131-1132	1133-1134	1135-1136	1137-1138	1139-1140	1141-1142	1143-1144	1145-1146	1147-1148	1149-1150	1151-1152	1153-1154	1155-1156	1157-1158	1159-1160	1161-1162	1163-1164	1165-1166	1167-1168	1169-1170	1171-1172	1173-1174	1175-1176	1177-1178	1179-1180	1181-1182	1183-1184	1185-1186	1187-1188	1189-1190	1191-1192	1193-1194	1195-1196	1197-1198	1199-1200	1201-1202	1203-1204	1205-1206	1207-1208	1209-1210	1211-1212	1213-1214	1215-1216	1217-1218	1219-1220	1221-1222	1223-1224	1225-1226	1227-1228	1229-1230	1231-1232	1233-1234	1235-1236	1237-1238	1239-1240	1241-1242	1243-1244	1245-1246	1247-1248	1249-1250	1251-1252	1253-1254	1255-1256	1257-1258	1259-1260	1261-1262	1263-1264	1265-1266	1267-1268	1269-1270	1271-1272	1273-1274	1275-1276	1277-1278	1279-1280	1281-1282	1283-1284	1285-1286	1287-1288	1289-1290	1291-1292	1293-1294	1295-1296	1297-1298	1299-1300	1301-1302	1303-1304	1305-1306	1307-1308	1309-1310	1311-1312	1313-1314	1315-1316	1317-1318	1319-1320	1321-1322	1323-1324	1325-1326	1327-1328	1329-1330	1331-1332	1333-1334	1335-1336	1337-1338	1339-1340	1341-1342	1343-1344	1345-1346	1347-1348	1349-1350	1351-1352	1353-1354	1355-1356	1357-1358	1359-1360	1361-1362	1363-1364	1365-1366	1367-1368	1369-1370	1371-1372	1373-1374	1375-1376	1377-1378	1379-1380	1381-1382	1383-1384	1385-1386	1387-1388	1389-1390	1391-1392	1393-1394	1395-1396	1397-1398	1399-1400	1401-1402	1403-1404	1405-1406	1407-1408	1409-1410	1411-1412	1413-1414	1415-1416	1417-1418	1419-1420	1421-1422	1423-1424	1425-1426	1427-1428	1429-1430	1431-1432	1433-1434	1435-1436	1437-1438	1439-1440	1441-1442	1443-1444	1445-1446	1447-1448	1449-1450	1451-1452	1453-1454	1455-1456	1457-1458	1459-1460	1461-1462	1463-1464	1465-1466	1467-1468	1469-1470	1471-1472	1473-1474	1475-1476	1477-1478	1479-1480	1481-1482	1483-1484	1485-1486	1487-1488	1489-1490	1491-1492	1493-1494	1495-1496	1497-1498	1499-1500	1501-1502	1503-1504	1505-1506	1507-1508	1509-1510	1511-1512	1513-1514	1515-1516	1517-1518	1519-1520	1521-1522	1523-1524	1525-1526	1527-1528	1529-1530	1531-1532	1533-1534	1535-1536	1537-1538	1539-1540	1541-1542	1543-1544	1545-1546	1547-1548	1549-1550	1551-1552	1553-1554	1555-1556	1557-1558	1559-1560	1561-1562	1563-1564	1565-1566	1567-1568	1569-1570	1571-1572	1573-1574	1575-1576	1577-1578	1579-1580	1581-1582	1583-1584	1585-1586	1587-1588	1589-1590	1591-1592	1593-1594	1595-1596	1597-1598	1599-1600	1601-1602	1603-1604	1605-1606	1607-1608	1609-1610	1611-1612	1613-1614	1615-1616	1617-1618	1619-1620	1621-1622	1623-1624	1625-1626	1627-1628	1629-1630	1631-1632	1633-1634	1635-1636	1637-1638	1639-1640	1641-1642	1643-1644	1645-1646	1647-1648	1649-1650	1651-1652	1653-1654	1655-1656	1657-1658	1659-1660	1661-1662	1663-1664	1665-1666	1667-1668	1669-1670	1671-1672	1673-1674	1675-1676	1677-1678	1679-1680	1681-1682	1683-1684	1685-1686	1687-1688	1689-1690	1691-1692	1693-1694	1695-1696	1697-1698	1699-1700	1701-1702	1703-1704	1705-1706	1707-1708	1709-1710	1711-1712	1713-1714	1715-1716	1717-1718	1719-1720	1721-1722	1723-1724	1725-1726	1727-1728	1729-1730	1731-1732	1733-1734	1735-1736	1737-1738	1739-1740	1741-1742	1743-1744	1745-1746	1747-1748	1749-1750	1751-1752	1753-1754	1755-1756	1757-1758	1759-1760	1761-1762	1763-1764	1765-1766	1767-1768	1769-1770	1771-1772	1773-1774	1775-1776	1777-1778	1779-1780	1781-1782	1783-1784	1785-1786	1787-1788	1789-1790	1791-1792	1793-1794	1795-1796	1797-1798	1799-1800	1801-1802	1803-1804	1805-1806	1807-1808	1809-1810	1811-1812	1813-1814	1815-1816	1817-1818	1819-1820	1821-1822	1823-1824	1825-1826	1827-1828	1829-1830	1831-1832	1833-1834	1835-1836	1837-1838	1839-1840	1841-1842	1843-1844	1845-1846	1847-1848	1849-1850	1851-1852	1853-1854	1855-1856	1857-1858	1859-1860	1861-1862	1863-1864	1865-1866	1867-1868	1869-1870	1871-1872	1873-1874	1875-1876	1877-1878	1879-1880	1881-1882	1883-1884	1885-1886	1887-1888	1889-1890	1891-1892	1893-1894	1895-1896	1897-1898	1899-1900	1901-1902	1903-1904	1905-1906	1907-1908	1909-1910	1911-1912	1913-1914	1915-1916	1917-1918	1919-1920	1921-1922	1923-1924	1925-1926	1927-1928	1929-1930	1931-1932	1933-1934	1935-1936	1937-1938	1939-1940	1941-1942	1943-1944	1945-1946	1947-1948	1949-1950	1951-1952	1953-1954	1955-1956	1957-1958	1959-1960	1961-1962	1963-1964	1965-1966	1967-1968	1969-1970	1971-1972	1973-1974	1975-1976	1977-1978	1979-1980	1981-1982	1983-1984	1985-1986	1987-1988	1989-1990	1991-1992	1993-1994	1995-1996	1997-1998	1999-2000	2001-2002	2003-2004	2005-2006	2007-2008	2009-2010	2011-2012	2013-2014	2015-2016	2017-2018	2019-2020	2021-2022	2023-2024	2025-2026	2027-2028	2029-2030	2031-2032	2033-2034	2035-2036	2037-2038	2039-2040	2041-2042	2043-2044	2045-2046	2047-2048	2049-2050	2051-2052	2053-2054	2055-2056	2057-2058	2059-2060	2061-2062	2063-2064	2065-2066	2067-2068	2069-2070	2071-2072	2073-2074	2075-2076	2077-2078	2079-2080	2081-2082	2083-2084	2085-2086	2087-2088	2089-2090	2091-2092	2093-2094	2095-2096	2097-2098	2099-2100	2101-2102	2103-2104	2105-2106	2107-2108	2109-2110	2111-2112	2113-2114	2115-2116	2117-2118	2119-2120	2121-2122	2123-2124	2125-2126	2127-2128	2129-2130	2131-2132	2133-2134	2135-2136	2137-2138	2139-2140	2141-2142	2143-2144	2145-2146	2147-2148	2149-2150	2151-2152	2153-2154	2155-2156	2157-2158	2159-2160	2161-2162	2163-2164	2165-2166	2167-2168	2169-2170	2171-2172	2173-2174	2175-2176	2177-2178	2179-2180	2181-2182	2183-2184	2185-2186	2187-2188	2189-2190	2191-2192	2193-2194	2195-2196	2197-2198	2199-2200	2201-2202	2203-2204	2205-2206	2207-2208	2209-2210	2211-2212	2213-2214	2215-2216	2217-2218	2219-2220	2221-2222	2223-2224	2225-2226	2227-2228	2229-2230	2231-2232	2233-2234	2235-2236	2237-2238	2239-2240	2241-2242	2243-2244	2245-2246	2247-2248	2249-2250	2251-2252	2253-2254	2255-2256	2257-225
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Subsection 2.—Infant Mortality

International Comparisons.—The completeness of registration of live births and infant deaths varies from country to country and there is some evidence that the under-registration of deaths is proportionately greater for infants than for other ages. The reliability of the basic data should, therefore, be kept in mind when comparing the rates.

25.—Infant Mortality per 1,000 Live Births in Various Countries compared with Canada and the Provinces, 1950

(Source: *Monthly Bulletin of Statistics of the United Nations* and other official publications. In certain cases final figures are not available and provisional data are used.)

Country]	Infant Mortality Rate	Country or Province	Infant Mortality Rate	Country	Infant Mortality Rate
Sweden.....	21	Canada.....	41	France ¹	47
New Zealand.....	23	British Columbia.....	30	Western Germany.....	55
Netherlands.....	25	Saskatchewan.....	32	Belgium.....	59
Australia.....	25	Alberta.....	32	Japan.....	60
Norway.....	28	Ontario.....	35	Italy.....	63
United States.....	29	Manitoba.....	35	Austria.....	64
England and Wales....	30	Prince Edward Island	36	Spain.....	69
Denmark.....	31	Nova Scotia.....	40	Ceylon.....	82
Switzerland.....	31	Quebec.....	51	Czechoslovakia.....	82 ²
Union of South Africa		New Brunswick.....	57	Portugal.....	94
(White).....	36	Newfoundland.....	58	Mexico.....	97
Northern Ireland.....	39	Finland.....	44	India ³	137
Scotland.....	39	Ireland.....	45	Chile.....	153

¹ Excluding infants born alive but who died before registration of birth.
 tration area only.

² 1949.

³ Regis-

Canadian Infant Mortality.—A striking improvement has been shown in the rate of infant mortality during the past 25 years. Of the children born in 1946-50, approximately 87,000 lived to their first birthday who would have died at the rate prevailing in the period 1926-30.

Infant mortality of males is 25 to 30 p.c. higher than that of females for Canada as a whole, with wider variations for the individual provinces. It was pointed out earlier that there were between 1,051 and 1,067 males born to every 1,000 females. Because male infant mortality is higher, the excess of males is reduced drastically by the end of the first year. For example, in 1940-42, 397,038 male children were born, compared with 374,908 female children, an excess of 22,130 or 5.9 p.c.; 25,024 male children died during their first year compared with 18,646 female children, that is 6,378 more. The excess of males at one year of age is thus reduced to 15,752, or 4.4 p.c.

Infant mortality rates vary considerably from province to province. One of the principal causes of these variations appears to be the different proportions of births which take place in hospital or under proper medical care, as pointed out earlier on p. 186. Along with increased hospitalization has come better and more widespread pre-natal and post-natal care. Other factors, particularly the supervision of water supplies, improved sanitation and the pasteurization of milk, also have been important.

26.—Infant Mortality and Rates per 1,000 Live Births, by Sex and by Provinces, 1947-50

Province and Year	Total Infant Deaths	Rate per 1,000 Live Births	Males		Females	
			Number of Infant Deaths	Rate per 1,000 Live Male Births	Number of Infant Deaths	Rate per 1,000 Live Female Births
Newfoundland.....1947	790	62	448	68	342	56
.....1948	685	59	398	67	289	51
.....1949	651	53	363	58	288	48
.....1950	758	58	408	60	350	55
Prince Edward Island.....1947	135	45	77	50	58	40
.....1948	97	34	50	34	47	34
.....1949	135	48	79	54	56	41
.....1950	105	36	54	37	51	35
Nova Scotia.....1947	840	44	476	49	364	38
.....1948	695	39	405	45	290	33
.....1949	750	42	434	47	316	37
.....1950	693	40	396	45	297	35
New Brunswick.....1947	1,041	59	622	68	419	49
.....1948	1,047	61	557	63	490	58
.....1949	993	60	603	70	390	48
.....1950	927	57	533	63	394	50
Quebec.....1947	6,583	57	3,839	65	2,744	49
.....1948	6,211	54	3,574	61	2,637	47
.....1949	6,031	52	3,474	58	2,557	45
.....1950	6,091	51	3,456	56	2,635	46
Ontario.....1947	3,914	36	2,220	40	1,694	32
.....1948	3,684	35	2,106	39	1,578	31
.....1949	3,974	37	2,237	41	1,737	34
.....1950	3,751	35	2,211	40	1,540	29
Manitoba.....1947	931	46	529	51	402	40
.....1948	765	41	433	45	332	36
.....1949	794	41	451	45	343	37
.....1950	673	35	394	40	279	30
Saskatchewan.....1947	1,018	44	592	49	426	37
.....1948	867	40	503	46	364	35
.....1949	834	39	456	41	378	36
.....1950	690	32	391	35	299	28
Alberta.....1947	915	37	510	40	405	34
.....1948	930	39	526	43	404	34
.....1949	823	33	462	36	361	30
.....1950	831	32	470	36	361	29
British Columbia.....1947	959	36	565	42	394	31
.....1948	868	33	500	38	368	29
.....1949	858	31	516	37	342	26
.....1950	805	30	460	33	345	26
Canada ¹ (Exclusive of the Territories).....1947	16,336	45	9,430	51	6,906	39
.....1948	15,164	44	8,654	49	6,510	38
.....1949	15,843	43	9,075	48	6,768	38
.....1950	15,324	41	8,773	46	6,551	36

¹ Figures for Newfoundland are not included in these totals except for the years 1949 and 1950.

Infant Mortality in Urban Centres.—Because of the relatively small numbers of infant deaths in individual cities and towns the rates for these centres usually vary widely from year to year. As is evident from Table 27, many cities and towns have, however, maintained consistently low rates as compared with the national rate or the rates for the province in which they are situated.

27.—Deaths and Death Rates of Infants Under One Year of Age (Exclusive of Stillbirths) in Urban Centres of 10,000 Population or Over, 1947-50

Province and Urban Centre	Infant Deaths				Rates per 1,000 Live Births			
	1947	1948	1949	1950	1947	1948	1949	1950
Newfoundland—								
St. John's.....	91	89	63	78	53	59	43	50
Prince Edward Island—								
Charlottetown.....	12	20	29	15	24	40	58	30
Nova Scotia—								
Dartmouth.....	13	20	23	11	25	43	44	21
Glace Bay.....	42	44	38	29	47	59	52	43
Halifax.....	87	70	77	73	35	29	34	31
Sydney.....	44	35	53	42	41	36	53	43
Truro.....	18	12	12	17	45	37	38	59
New Brunswick—								
Fredericton.....	12	15	21	12	25	34	47	27
Moncton.....	38	27	29	21	43	34	41	31
Saint John.....	98	77	67	52	57	48	46	35
Quebec—								
Cap-de-la-Madeleine.....	21	25	36	30	47	47	62	51
Chicoutimi.....	64	53	47	55	65	53	47	59
Drummondville.....	34	21	25	15	70	46	54	30
Granby.....	33	19	27	31	47	29	37	42
Hull.....	75	75	81	78	52	53	60	57
Joliette.....	18	26	24	19	43	61	52	44
Jonquière.....	56	56	53	57	76	63	59	63
Lachine.....	18	22	18	22	27	35	26	32
Lévis.....	19	14	14	11	51	40	42	32
Montreal.....	1,110	1,085	1,078	1,061	45	45	44	42
Outremont.....	9	3	9	5	21	10	36	17
Quebec.....	451	277	244	228	100	67	59	55
St. Hyacinthe.....	27	26	24	28	48	48	51	48
St. Jean.....	21	19	14	19	44	37	28	32
St. Jérôme.....	27	31	32	47	46	54	60	82
Shawinigan Falls.....	39	50	40	33	43	55	46	38
Sherbrooke.....	100	74	81	97	68	52	54	61
Sorel.....	31	28	31	15	59	57	70	34
Thetford Mines.....	30	14	18	23	60	35	39	53
Three Rivers.....	82	81	97	94	66	64	71	67
Valleyfield.....	28	25	29	35	42	36	42	51
Verdun.....	89	71	32	58	50	40	18	34
Westmount.....	8	9	8	8	27	33	26	34
Ontario—								
Belleville.....	22	10	13	21	42	22	27	43
Brantford.....	42	25	36	44	39	28	37	48
Brockville.....	11	12	19	10	30	36	51	32
Chatham.....	20	13	22	29	36	26	42	55

27.—Deaths and Death Rates of Infants Under One Year of Age (Exclusive of Stillbirths) in Urban Centres of 10,000 Population or Over, 1947-50—concluded

Province and Urban Centre	Infant Deaths				Rates per 1,000 Live Births			
	1947	1948	1949	1950	1947	1948	1949	1950
Ontario—concluded								
Cornwall.....	35	24	28	22	50	44	57	52
Forest Hill.....	4	6	7	6	19	28	35	31
Fort William.....	35	29	29	30	35	32	31	33
Galt.....	15	10	15	16	33	25	37	35
Guelph.....	24	28	27	25	35	43	39	39
Hamilton.....	128	138	127	139	27	32	28	30
Kingston.....	25	21	25	37	24	24	27	43
Kitchener.....	26	27	32	29	25	26	31	27
London.....	92	80	72	57	38	35	33	25
Niagara Falls.....	19	20	30	7	24	31	55	15
North Bay.....	21	22	21	14	41	46	43	30
Oshawa.....	29	35	19	27	39	50	26	35
Ottawa.....	180	154	139	167	40	38	37	35
Owen Sound.....	27	6	18	12	57	15	43	31
Pembroke.....	10	23	26	26	28	66	74	68
Peterborough.....	37	34	29	36	34	33	27	35
Port Arthur.....	41	26	31	29	49	33	37	37
St. Catharines.....	24	30	32	27	24	35	40	33
St. Thomas.....	20	23	19	14	45	58	45	34
Sarnia.....	18	20	20	21	26	33	34	35
Sault Ste. Marie.....	31	39	54	33	34	47	63	41
Stratford.....	17	16	13	16	38	37	31	40
Sudbury.....	63	64	72	59	45	47	55	42
Timmins.....	39	48	39	32	41	56	46	39
Toronto.....	462	415	414	385	30	30	30	29
Welland.....	22	15	13	11	53	37	34	29
Windsor.....	104	104	130	108	34	36	44	36
Woodstock.....	12	9	15	6	34	30	43	18
Manitoba—								
Brandon.....	22	17	20	21	50	40	43	43
St. Boniface.....	24	21	22	19	35	33	33	27
Winnipeg.....	205	156	140	131	36	32	28	25
Saskatchewan—								
Moose Jaw.....	29	30	23	7	43	50	38	12
Prince Albert.....	26	19	30	11	49	40	59	25
Regina.....	70	45	59	39	38	27	37	24
Saskatoon.....	70	44	42	45	47	33	29	31
Alberta—								
Calgary.....	104	118	87	91	34	40	28	29
Edmonton.....	130	139	112	137	33	34	26	29
Lethbridge.....	12	30	9	18	20	54	16	28
Medicine Hat.....	9	14	19	10	24	32	44	26
British Columbia—								
New Westminster.....	16	19	12	16	26	32	20	28
Vancouver.....	218	172	191	174	28	24	25	24
Victoria.....	26	23	21	20	21	19	19	19

Causes of Infant Deaths.—Of the 15,324 infant deaths in 1950 almost 15 p.c. were due to immaturity; 12 p.c. to congenital malformations; over 11 p.c. to pneumonia among infants over 4 weeks of age and over 10 p.c. were due to injury at birth. These specific causes accounted for almost one-half of the total infant deaths.

23.—Infant Mortality and Rates per 100,000 Live Births, by Selected Causes and by Provinces, 1950

NOTE.—Deaths for 1950 were classified according to the 1948 (8th) Revision of the International List of Causes of Death, while those for previous years were classified according to earlier revisions of the List. The cause groups shown below are, therefore, not strictly comparable with those shown in previous issues of the Year Book.

Inter-national List No.	Cause of Death	New-foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
NUMBER OF DEATHS												
001-019	Tuberculosis.....	7	—	5	3	31	7	6	5	7	2	73
020-029	Syphilis.....	2	—	1	—	8	5	—	1	—	1	18
030	Scarlet fever.....	—	—	—	—	1	—	—	—	—	—	2
031	Erysipelas.....	—	—	—	—	—	—	—	—	—	—	—
032	Diphtheria.....	—	—	—	—	4	—	—	—	—	—	4
033	Whooping cough.....	40	8	16	19	108	29	9	1	1	5	236
034	Meningococcal infections.....	1	—	1	6	15	11	2	2	3	—	38
035	Measles.....	—	—	1	3	33	8	4	3	—	—	60
036	Diseases of the thymus gland.....	2	—	1	8	50	17	2	2	4	14	98
037	Meningitis (non-meningococcal).....	9	3	11	13	93	15	5	—	5	9	164
038	Otitis media.....	1	—	1	5	208	16	1	1	1	5	238
039	Influenza.....	20	4	13	23	142	38	11	16	8	26	301
040-049	Pneumonia (4 weeks and over).....	89	14	119	126	631	353	91	95	93	90	1,701
050-059	Bronchitis.....	13	—	5	5	37	24	7	3	5	10	108
060-069	Enteritis (4 weeks and over).....	46	9	32	68	385	191	36	37	39	20	863
070-079	Congenital malformations.....	40	10	83	80	623	640	79	88	112	90	1,856
080-089	Injury at birth.....	30	6	60	70	655	414	78	90	105	105	1,587
090-099	Pneumonia of newborn (under 4 weeks).....	24	4	19	19	224	77	28	24	26	11	456
100-109	Diarrhoea of newborn (under 4 weeks).....	7	3	5	17	117	54	5	6	11	5	232
110-119	Antenatal toxæmia.....	3	1	11	15	83	54	5	6	12	22	212
120-129	Erythroblastosis.....	10	—	9	16	136	60	10	20	17	15	299
130-139	Nutritional maladjustment.....	8	—	13	18	73	35	9	8	6	5	177
140-149	Ill-defined diseases peculiar to early infancy.....	—	—	—	—	—	—	—	—	—	—	—
150-159	Immaturity.....	47	1	17	48	928	82	27	20	24	18	1,210
160-169	Ill-defined and unknown causes.....	90	15	103	142	587	786	113	122	174	147	2,279
170-179	Other specified causes.....	111	2	18	104	41	45	25	1	7	13	367
180-189	Other specified causes.....	158	23	139	118	880	784	120	139	196	188	2,745
Totals, All Causes.....		758	165	693	927	6,091	3,751	673	690	831	805	15,324

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28.—Infant Mortality and Rates per 100,000 Live Births, by Selected Causes and by Provinces, 1950—concluded

Inter- national List No.	Cause of Death	New- foundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada ¹
RATES PER 100,000 LIVE BIRTHS												
001-019	Tuberculosis.....	53	—	29	18	26	6	31	23	27	7	20
020-029	Syphilis.....	15	—	6	—	7	5	—	5	—	4	5
030	Scarlet fever.....	—	—	—	—	1	—	—	—	4	—	1
031	Erysipelas.....	—	—	—	—	—	—	—	—	—	—	—
032	Diphtheria.....	—	—	—	—	—	—	—	—	—	—	—
033	Whooping cough.....	—	—	—	—	—	—	—	—	—	—	—
034	Measles.....	—	—	—	—	—	—	—	—	—	—	—
035	Meningococcal infections.....	—	—	—	—	—	—	—	—	—	—	—
036	Diseases of the thymus gland.....	—	—	—	—	—	—	—	—	—	—	—
037	Meningitis (non-meningococcal).....	—	—	—	—	—	—	—	—	—	—	—
038	Otitis media.....	—	—	—	—	—	—	—	—	—	—	—
039	Influenza.....	—	—	—	—	—	—	—	—	—	—	—
040	Pneumonia (4 weeks and over).....	—	—	—	—	—	—	—	—	—	—	—
041	Bronchitis (4 weeks and over).....	—	—	—	—	—	—	—	—	—	—	—
042	Enteritis (4 weeks and over).....	—	—	—	—	—	—	—	—	—	—	—
043	Congenital malformations.....	—	—	—	—	—	—	—	—	—	—	—
044	Injury at birth.....	—	—	—	—	—	—	—	—	—	—	—
045	Pneumonia of newborn (under 4 weeks).....	—	—	—	—	—	—	—	—	—	—	—
046	Diarrhoea of newborn (under 4 weeks).....	—	—	—	—	—	—	—	—	—	—	—
047	Antenatal toxemia.....	—	—	—	—	—	—	—	—	—	—	—
048	Erythroblastosis.....	—	—	—	—	—	—	—	—	—	—	—
049	Nutritional maladjustment.....	—	—	—	—	—	—	—	—	—	—	—
050	Ill-defined diseases peculiar to early infancy.....	—	—	—	—	—	—	—	—	—	—	—
051	Immaturity.....	—	—	—	—	—	—	—	—	—	—	—
052	Ill-defined and unknown causes.....	—	—	—	—	—	—	—	—	—	—	—
053	Other specified causes.....	—	—	—	—	—	—	—	—	—	—	—
054	Totals, All Causes.....	5,758	3,640	4,015	5,655	5,114	3,451	3,494	3,202	3,243	2,969	4,130

¹ Exclusive of the Territories.

Subsection 3.—Maternal Mortality

The number of mothers who die in pregnancy and childbirth has been greatly reduced in recent years. Maternal mortality in Canada and the provinces is shown in Table 5, p. 184. Although the number of births has been much greater in recent years, the number of maternal deaths has declined steadily since about 1930 (when there were 1,405 deaths and a rate of almost six deaths for every 1,000 live births) to 420 in 1950. Since 1945 the rate of maternal mortality has dropped below two per 1,000 live births and was just over one per 1,000 live births in 1950. Mortality among unmarried mothers is higher than among married mothers.

Age at Death.—Table 29 shows the distribution of maternal deaths by age, together with the average age at death. The latter is slightly more than two years higher than the average age of all mothers at the time of childbirth. The rates per 1,000 live births by age groups show that age is a most important factor in maternal mortality. Though all the rates are much lower than they used to be, the inequalities between the age groups remain. The rate at 30-34 years is over twice as high as the rate at 20-24 years, and at 40-44 years it is over six times as high. The higher rate in the first age group shown in the table, compared with the second, is due to the high proportion of illegitimate children born to young mothers.

29.—Maternal Mortality and Rates per 1,000 Live Births, by Age Groups, 1947-50

(Exclusive of the Territories)

Age Group	Maternal Deaths								Rates per 1,000 Live Births			
	1947 ¹		1948 ¹		1949		1950		1947 ¹	1948 ¹	1949	1950
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.				
Under 20 years.....	24	4.3	24	4.7	25	4.9	18	4.5	1.07	1.06	1.06	0.76
20 - 24 ".....	96	17.3	83	16.3	77	15.0	42	10.5	0.92	0.84	0.78	0.43
25 - 29 ".....	107	19.3	106	20.8	116	22.7	95	23.8	1.00	1.02	1.07	0.86
30 - 34 ".....	144	26.0	107	21.0	121	23.6	85	21.3	2.00	1.56	1.75	1.19
35 - 39 ".....	120	21.7	115	22.5	101	19.7	99	24.8	3.06	2.97	2.52	2.42
40 - 44 ".....	55	9.9	66	12.9	64	12.5	51	12.8	4.43	5.42	5.25	4.16
45 - 49 ".....	8	1.4	9	1.8	8	1.6	6	1.5	7.65	8.38	7.54	6.03
50 years or over.....	—	...	—	...	—	...	3	0.8	...	...	...	...
Totals, All Ages at Death.....	554	100.0	510	100.0	512	100.0	399	100.0	1.54	1.47	1.45	1.11
Average Ages at Death.....	31.5		31.9		31.7		32.5		...	...	...	...

¹ Exclusive of Newfoundland.

Causes of Maternal Deaths.—Table 30 shows, by causes, the numbers and rates of maternal deaths per 100,000 live births. Until a decade ago, puerperal sepsis and toxæmias of pregnancy were by far the most important causes. Since 1936 the rate for puerperal sepsis has been reduced by almost 95 p.c. due in large measure to the use of sulpha and other antibiotics. Although there has been a reduction of over 70 p.c. since 1936 in the maternal death rate from toxæmias of pregnancy, this still remains the second major cause of maternal deaths, after complications of delivery.

30.—Maternal Mortality and Rates per 100,000 Live Births, by Causes and by Provinces, 1950

NOTE.—Deaths for 1950 were classified according to the 1948 (6th) Revision of the International List of Causes of Death, while those for previous years were classified according to earlier revisions of the List. The cause groups shown below are, therefore, not strictly comparable with those shown in previous issues of the Year Book.

Inter-national List No.	Cause of Death	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada ¹
NUMBERS OF DEATHS												
640, 641	Infections associated with pregnancy...	—	—	—	—	—	—	—	—	—	—	1
642	Toxemias of pregnancy	4	—	—	—	39	22	1	8	4	3	90
643, 644	Hemorrhages associated with pregnancy	—	—	—	—	9	4	—	2	1	—	16
645	Ectopic pregnancy	—	—	—	—	5	8	—	—	2	—	19
646-649	Other conditions of pregnancy	—	—	—	—	5	2	—	—	—	—	9
650	Abortion without mention of infection	—	—	—	—	6	9	—	2	—	—	19
651, 652	Abortion with mention of infection	1	1	1	—	7	10	2	—	—	—	31
653, 654	Delivery without complication	4	—	—	—	2	—	—	—	—	—	7
655-658	Delivery with complication	5	2	8	7	83	26	—	7	5	4	151
659, 660	Puerperal sepsis	—	—	1	1	2	4	2	—	1	1	12
661-664	Other complications of the puerperium	6	—	4	2	24	12	3	2	4	8	65
	Totals, All Puerperal Causes	21	3	21	15	182	97	14	21	19	27	420
RATES PER 100,000 LIVE BIRTHS												
640, 641	Infections associated with pregnancy...	—	—	—	—	—	—	—	—	—	—	0.3
642	Toxemias of pregnancy	30.4	—	—	—	32.7	20.2	5.2	37.1	15.6	3.7	24.3
643, 644	Hemorrhages associated with pregnancy	—	—	—	—	7.6	3.7	—	9.3	3.9	—	4.3
645	Ectopic pregnancy	—	—	—	—	4.2	7.4	10.4	—	7.8	7.4	5.1
646-649	Other conditions of pregnancy	—	—	—	—	5.0	1.8	—	9.3	—	—	2.4
650	Abortion without mention of infection	7.6	—	5.8	—	5.0	8.3	—	—	—	—	5.1
651, 652	Abortion with mention of infection	30.4	34.7	5.8	6.1	1.7	9.2	10.4	—	7.8	22.1	8.4
653, 654	Delivery without complication	38.0	69.3	46.3	42.7	69.7	23.9	20.8	—	19.5	14.8	40.7
655-658	Delivery with complication	45.6	69.3	5.8	6.1	1.7	3.7	10.4	32.5	3.9	3.7	3.2
659, 660	Puerperal sepsis	—	—	23.2	12.2	20.1	11.0	15.6	9.3	15.6	29.5	17.5
661-664	Other complications of the puerperium	—	—	—	—	—	—	—	—	—	—	—
	Totals, All Puerperal Causes	159.5	104.0	121.7	91.5	152.8	89.2	72.7	97.5	74.1	99.6	113.2

¹ Exclusive of the Territories.

Section 4.—Natural Increase

In 1926-30 the rate of natural increase in Canada (excess of births over deaths) was 13 per 1,000 population. Owing partly to the depression, the birth rate declined more than the death rate and the rate of natural increase fell to 9.7 in 1937. Since then the rate has increased to 12.6 in 1940-42, 14.5 in 1945, 17.5 in 1946 and 19.2 in 1947. The rates of 17.7 in 1948, 17.9 in 1949 and 18.1 in 1950 were lower due to increases in total deaths in recent years.

The rates of natural increase in the provinces followed generally the rate for Canada as a whole. In earlier years, Saskatchewan and Quebec had the highest rates. The high rates in all the Prairie Provinces were due partly to their relatively younger populations and consequent low death rates. In Quebec, on the other hand, the death rate in 1926-30 was high; it has declined steadily since. Due to high birth rates, Newfoundland and New Brunswick have had the highest rates of natural increase in Canada in recent years.

The rates are generally higher for females than for males for the reason that death rates for males are higher than for females. In the western provinces particularly, the fact that the ratio of males to females in the total population is higher than in other parts of Canada makes for a lower rate of natural increase.

In a country such as Canada with a fairly young population and where immigration has been large, an excess of males is to be expected but the higher rate of natural increase for females will gradually reduce this excess. The trend is towards an eventual excess of females in the total population as there now is in most European countries.

31.—Natural Increase and Rates of Natural Increase, by Sex and by Provinces, 1947-50

Province and Year	Excess of Births Over Deaths	Rate per 1,000 Population	Males		Females	
			Number	Rate per 1,000 Males	Number	Rate per 1,000 Females
Newfoundland.....1947	9,321	27.6	4,804	28.1	4,517	27.7
.....1948	8,526	24.8	4,246	24.4	4,280	25.8
.....1949	9,413	27.1	4,659	26.2	4,754	27.9
.....1950	9,996	28.5	5,079	28.0	4,917	28.4
Prince Edward Island.....1947	1,972	20.9	989	20.5	983	21.5
.....1948	1,955	21.1	998	20.8	957	21.2
.....1949	1,907	20.3	926	19.0	981	21.7
.....1950	1,982	20.7	978	19.8	1,004	21.5
Nova Scotia.....1947	13,256	21.3	6,484	20.6	6,772	22.2
.....1948	11,694	18.4	5,703	17.9	5,991	19.0
.....1949	11,759	18.2	5,898	18.0	5,861	18.4
.....1950	11,184	17.6	5,499	16.5	5,685	17.5
New Brunswick.....1947	12,939	26.4	6,438	25.8	6,501	26.9
.....1948	12,320	24.5	6,221	24.3	6,099	24.7
.....1949	11,797	22.9	5,931	22.6	5,866	23.1
.....1950	11,498	22.4	5,782	21.9	5,716	22.2
Quebec.....1947	81,845	22.0	40,827	21.9	41,018	22.2
.....1948	81,106	21.4	40,580	21.3	40,526	21.4
.....1949	82,717	21.3	41,445	21.3	41,272	21.3
.....1950	85,604	21.6	42,937	21.6	42,667	21.5
Ontario.....1947	67,234	16.1	32,825	15.5	34,409	16.6
.....1948	61,831	14.3	30,065	13.8	31,766	15.0
.....1949	63,222	14.4	30,661	13.7	32,561	14.9
.....1950	64,760	14.5	31,409	13.8	33,351	15.0

31.—Natural Increase and Rates of Natural Increase, by Sex and by Provinces, 1947-50—concluded

Province and Year	Excess of Births Over Deaths	Rate per 1,000 Population	Males		Females	
			Number	Rate per 1,000 Males	Number	Rate per 1,000 Females
Manitoba.....	1947 13,659	18.4	6,450	17.0	7,209	19.8
	1948 12,195	16.1	5,715	14.8	6,480	17.4
	1949 12,373	15.9	5,941	15.0	6,432	16.9
	1950 12,651	16.5	6,046	14.9	6,605	17.0
Saskatchewan.....	1947 16,724	19.8	7,979	17.9	8,745	22.1
	1948 15,066	17.6	7,000	15.4	8,066	20.1
	1949 15,066	17.5	7,217	15.8	7,849	19.4
	1950 15,303	18.4	7,206	15.6	8,097	19.6
Alberta.....	1947 18,088	22.0	8,764	20.2	9,324	24.0
	1948 17,088	20.2	8,077	18.2	9,011	22.4
	1949 17,852	20.5	8,433	18.4	9,419	22.8
	1950 18,769	20.6	8,949	19.1	9,820	23.1
British Columbia.....	1947 15,673	15.0	6,779	12.5	8,894	17.7
	1948 14,668	13.5	6,277	11.2	8,391	16.2
	1949 15,986	14.3	6,857	11.9	9,129	17.0
	1950 15,535	13.6	6,683	11.4	8,852	16.1
Canada ¹ (Exclusive of the Territories).....	1947 241,390	19.2	117,535	18.4	123,855	20.1
	1948 227,923	17.7	110,696	16.9	117,227	18.6
	1949 242,092	17.9	117,968	17.1	124,124	18.7
	1950 247,282	18.1	120,568	17.1	126,714	18.7

¹ Figures for Newfoundland are not included in these totals except for the years 1949 and 1950.

Natural Increase in Urban Centres.—The classification of births and deaths by place of residence makes it possible to compile the natural increase in the population of urban centres; the figures are given in Table 32.

32.—Natural Increase in Urban Centres of 10,000 Population or Over, 1947-50, with Averages, 1941-45

Province and Urban Centre	Census Population, 1941	Natural Increase				
		Average 1941-45	1947	1948	1949	1950
Newfoundland—						
St. John's.....	44,603 ¹	2	1,243	1,043	1,020	1,106
Prince Edward Island—						
Charlottetown.....	14,821	183	287	277	257	320
Nova Scotia—						
Dartmouth.....	10,847	285	431	341	388	425
Glace Bay.....	25,147	498	690	500	493	467
Halifax.....	70,488	1,241	1,760	1,648	1,550	1,552
Sydney.....	28,305	624	768	669	685	688
Truro.....	10,272	185	300	243	209	164
New Brunswick—						
Fredericton.....	10,062	107	343	301	292	295
Moncton.....	22,763	421	675	554	494	449
Saint John.....	51,741	719	1,072	1,004	791	863
Quebec—						
Cap-de-la-Madeleine.....	11,961	274	333	430	449	471
Chicoutimi.....	16,040	706	768	805	812	754
Drummondville.....	10,555	279	383	356	356	397
Granby.....	14,197	332	550	500	562	583
Hull.....	32,947	819	1,108	1,046	984	1,017
Joliette.....	12,749	250	263	245	318	276
Jonquière.....	13,769	705	587	745	765	755

¹ 1945 Census of Newfoundland.

² Not available for one year of the period.

32.—Natural Increase in Urban Centres of 10,000 Population or Over, 1947-50, with Averages, 1941-45—concluded

Province and Urban Centre	Census Population, 1941	Natural Increase				
		Average 1941-45	1947	1948	1949	1950
Quebec—concluded						
Lachine.....	20,051	271	459	445	473	463
Lévis.....	11,991	203	241	217	202	223
Montreal.....	903,007	11,471	14,950	14,369	14,381	15,279
Outremont.....	30,751	44	137	19	-23	36
Quebec.....	150,757	2,416	2,681	2,463	2,472	2,584
St. Hyacinthe.....	17,798	163	296	305	232	330
St. Jean.....	13,646	279	326	354	380	453
St. Jérôme.....	11,329	311	461	440	412	422
Shawinigan Falls.....	20,325	674	736	700	712	672
Sherbrooke.....	35,965	700	1,022	1,011	1,048	1,146
Sorel.....	12,251	312	359	332	288	315
Thetford Mines.....	12,716	269	341	270	330	298
Three Rivers.....	42,007	821	857	845	926	955
Valleyfield.....	17,052	481	491	521	522	515
Verdun.....	67,349	988	1,179	1,196	1,201	1,146
Westmount.....	26,047	-24	22	-31	-7	-60
Ontario—						
Belleville.....	15,710	205	324	267	290	251
Brantford.....	31,948	346	675	499	534	485
Brockville.....	11,342	102	201	170	224	161
Chatham.....	17,369	193	352	295	313	285
Cornwall.....	14,117	302	505	362	314	254
Forest Hill.....	11,757	96	113	114	107	94
Fort William.....	30,585	404	702	622	621	566
Galt.....	15,346	140	291	226	205	241
Guelph.....	23,273	198	448	372	384	346
Hamilton.....	166,337	1,693	2,918	2,359	2,625	2,664
Kingston.....	30,126	467	675	437	495	442
Kitchener.....	35,657	380	722	681	670	667
London.....	78,264	759	1,392	1,323	1,239	1,128
Niagara Falls.....	20,589	323	551	377	284	254
North Bay.....	15,599	221	330	279	306	301
Oshawa.....	26,813	366	471	420	486	506
Ottawa.....	154,961	1,639	2,773	2,394	2,035	2,847
Owen Sound.....	14,002	130	277	240	255	212
Pembroke.....	11,159	172	220	220	206	233
Peterborough.....	25,350	363	744	658	671	644
Port Arthur.....	24,426	308	520	484	532	455
St. Catharines.....	30,275	420	632	515	476	469
St. Thomas.....	17,132	145	204	150	182	161
Sarnia.....	18,734	228	467	374	364	377
Sault Ste. Marie.....	25,794	473	650	552	532	517
Stratford.....	17,038	79	227	179	177	148
Sudbury.....	32,203	1,056	1,124	1,042	986	1,112
Timmins.....	28,790	652	754	660	646	604
Toronto.....	667,467	3,629	7,508	6,105	5,744	5,697
Welland.....	12,500	234	274	262	269	239
Windsor.....	105,311	1,430	2,007	1,849	1,823	1,917
Woodstock.....	12,461	93	184	146	180	165
Manitoba—						
Brandon.....	17,383	191	230	247	265	279
St. Boniface.....	18,167	238	507	466	481	508
Winnipeg.....	221,960	1,932	3,352	2,610	2,699	2,959
Saskatchewan—						
Moose Jaw.....	20,753	250	432	335	345	391
Prince Albert.....	12,508	226	390	334	372	319
Regina.....	58,245	733	1,309	1,230	1,109	1,139
Saskatoon.....	43,027	490	1,051	900	1,015	1,008
Alberta—						
Calgary.....	88,904	1,180	2,031	1,794	2,002	1,981
Edmonton.....	93,817	1,549	3,046	3,045	3,363	3,562
Lethbridge.....	14,612	228	442	370	383	474
Medicine Hat.....	10,571	164	248	290	278	254
British Columbia—						
New Westminster.....	21,967	260	351	330	328	332
Vancouver.....	275,353	2,020	4,043	3,211	3,542	3,186
Victoria.....	44,068	462	466	416	353	292

Section 5.—Marriages and Divorces

Subsection 1.—Marriages

International Comparisons.—Table 33 shows the marriage rates in Canada and the provinces in comparison with those of other countries. Canadian marriage rates have always been relatively high.

33.—Marriage Rates per 1,000 Population of Various Countries compared with Canada and the Provinces, 1950

(Source: *Monthly Bulletin of Statistics of the United Nations* and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Marriage Rate	Country or Province	Marriage Rate	Country	Marriage Rate
United States.....	11.0	Canada—concluded		Chile.....	7.9
Western Germany.....	10.7	Manitoba.....	9.3	France.....	7.9
Czechoslovakia.....	10.4	Quebec.....	8.6	Switzerland.....	7.9
Hungary.....	10.4	New Brunswick.....	8.5	Scotland.....	7.8
Japan.....	10.2	Saskatchewan.....	8.3	Italy.....	7.7
Union of South Africa		Nova Scotia.....	7.9	Portugal.....	7.7
(Whites).....	9.9	Newfoundland.....	7.2	Sweden.....	7.7
Austria.....	9.4	Prince Edward Island	6.4	Spain.....	7.4
Australia.....	9.2			Ceylon.....	6.8
New Zealand.....	9.2			Northern Ireland.....	6.8 ¹
Canada.....	9.1	Denmark.....	9.1	Mexico.....	5.7 ¹
Alberta.....	10.2	Finland.....	8.5	Ireland.....	5.4
British Columbia.....	9.8	Belgium.....	8.3	Venezuela.....	5.1
Ontario.....	9.8	Norway.....	8.3	Peru.....	3.5
		Netherlands.....	8.2		
		England and Wales....	8.1		

¹ 1949.

As a rule, marriage rates vary with the level of economic prosperity. They fell during the depression years following 1929, but recovered in the later 1930's. In Canada, England and the United States, the number of marriages was exceptionally high in 1940-42, decreased in 1943 and 1944 but increased in 1945 and 1946, and reached peak rates in the immediate post-war years. The Canadian post-war peak marriage rate of 10.9 was reached in 1946.

Canadian Marriages.—Table 34 shows the number of marriages and the marriage rates per 1,000 population in Canada and the provinces. Percentages of brides and bridegrooms, according to place of birth, are also given.

For the country as a whole, about 85 p.c. of the grooms were born in Canada—70 p.c. in the province in which they were married. Almost 90 p.c. of the brides were born in Canada—over 75 p.c. in the province in which they were married. However, there are wide variations from this pattern as between provinces; in the four Atlantic Provinces and Quebec there is a greater tendency to marry native and/or province-born partners than in the other provinces.

34.—Marriages and Marriage Rates, by Provinces, with Percentage Distribution of Bridegrooms and Brides by Nativity, 1947-50

Province and Year	Total Marriages	Rate per 1,000 Population	Born in Province Where Married		Born in Other Provinces		Born Outside Canada	
			Grooms	Brides	Grooms	Brides	Grooms	Brides
	No.		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Newfoundland..... 1949	2,445	7.0	94.9 ¹	98.8 ¹	1.1 ¹	0.3 ¹	4.0 ¹	0.9 ¹
1950	2,515	7.2	89.6 ¹	97.8 ¹	1.3 ¹	1.2 ¹	9.0 ¹	1.0 ¹
Prince Edward Island..... 1947	676	7.2	85.9	88.5	8.6	5.5	5.5	6.1
1948	635	6.8	86.0	91.8	8.5	3.8	5.5	4.4
1949	619	6.6	85.0	92.9	10.2	3.6	4.8	3.6
1950	616	6.4	82.5	91.6	13.0	4.4	4.5	4.1
Nova Scotia..... 1947	5,861	9.4	80.9	84.0	11.2	6.9	7.8	9.0
1948	5,093	8.0	80.1	84.3	12.3	6.8	7.7	8.9
1949	5,058	7.8	79.6	85.3	13.6	9.4	6.8	5.3
1950	5,065	7.9	77.7	85.2	16.5	10.3	5.9	4.5
New Brunswick..... 1947	5,189	10.6	78.6	84.6	10.5	7.2	10.9	8.3
1948	4,640	9.2	78.4	84.2	10.4	7.3	11.2	8.4
1949	4,251	8.2	79.8	84.6	10.7	7.9	9.5	7.5
1950	4,376	8.5	78.5	85.1	11.5	7.2	10.1	7.7
Quebec..... 1947	35,494	9.6	88.0	89.9	6.4	5.9	5.6	4.2
1948	34,646	9.1	86.9	89.3	6.7	6.0	6.5	4.8
1949	33,485	8.6	85.8	88.1	6.4	6.1	7.8	5.8
1950	34,093	8.6	86.2	88.6	6.3	6.0	7.5	5.5
Ontario..... 1947	44,056	10.5	73.6	76.1	11.8	10.9	14.5	13.0
1948	43,242	10.1	72.0	75.9	12.0	11.0	15.9	13.0
1949	43,304	9.8	68.9	74.2	12.8	11.5	18.3	14.3
1950	43,744	9.8	67.5	73.3	13.5	11.8	19.0	14.9
Manitoba..... 1947	7,712	10.4	70.9	75.4	15.9	13.8	13.3	10.8
1948	7,325	9.7	70.2	75.7	14.5	13.4	15.4	10.9
1949	7,265	9.3	67.8	74.2	15.2	13.2	17.0	12.6
1950	7,128	9.3	68.5	74.3	14.8	13.2	16.7	12.4
Saskatchewan..... 1947	7,674	9.1	76.7	83.7	11.5	7.0	11.7	9.3
1948	7,171	8.4	76.4	85.7	11.6	6.3	11.9	7.9
1949	7,037	8.2	76.1	85.5	11.4	6.0	12.5	8.4
1950	6,904	8.3	77.6	86.0	10.8	6.5	11.5	7.5
Alberta..... 1947	8,797	10.7	58.1	65.7	23.3	19.3	18.6	15.0
1948	8,844	10.5	56.8	66.5	23.6	20.1	19.6	13.4
1949	9,037	10.4	55.3	65.8	23.8	19.2	20.9	15.0
1950	9,294	10.2	54.2	65.5	25.3	19.9	20.5	14.6
British Columbia..... 1947	11,852	11.4	33.7	38.7	43.0	43.7	23.3	17.6
1948	11,718	10.8	33.8	38.1	43.0	45.4	23.1	16.5
1949	11,376	10.2	33.6	39.2	44.0	44.2	22.5	16.6
1950	11,110	9.8	34.8	39.6	43.4	45.1	21.8	15.3
Canada (Exclusive of the Territories)..... 1947	127,311	10.1	73.5	76.9	14.2	12.7	12.4	10.4
1948	123,314	9.6	72.3	76.7	14.3	13.0	13.4	10.3
1949	123,877	9.2	70.9 ¹	76.1 ¹	14.6 ¹	12.9 ¹	14.5 ¹	11.0 ¹
1950	124,945	9.1	70.6 ¹	76.1 ¹	14.8 ¹	13.1 ¹	14.6 ¹	10.8 ¹

¹ Excluding "not stated" birthplace.

Age and Marital Status of Bridegrooms and Brides.—Over 91 p.c. of the marriages in 1950 were between persons who had not previously been married; 5 p.c. of the brides and grooms had been widowed, while almost 4 p.c. of the marriages were of divorced persons. The average age at marriage of bachelors is about 27 years and that of spinsters about 24 years. The average age of widowers and widows at the time of re-marriage is almost double that of bachelors and spinsters. Nine out of ten spinsters married in 1950 were less than 30 years of age—7 out of 10 below 25 years—while 8 out of 10 bachelors were less than 30 and about one-half of the total were below 25 years of age.

35.—Bridegrooms, by Age Groups and Marital Status, 1948-50

(Exclusive of the Territories)

Age Group	1948 ¹				1949				1950			
	Bach- elors	Wid- owers	Di- vorced	Total	Bach- elors	Wid- owers	Di- vorced	Total	Bach- elors	Wid- owers	Di- vorced	Total
NUMBERS												
Under 20 years..	5,478	1	1	5,480	5,752	—	—	5,752	6,345	1	—	6,346
20-24 " ..	48,869	62	184	49,115	48,944	56	160	49,160	51,055	49	120	51,224
25-29 " ..	33,772	253	1,035	35,060	34,088	254	894	35,236	33,877	225	820	34,922
30-34 " ..	12,820	404	1,324	14,548	12,463	448	1,154	14,065	11,976	385	1,103	13,464
35-39 " ..	5,443	592	1,144	7,179	5,489	598	1,008	7,095	5,346	524	997	6,867
40-44 " ..	2,545	618	776	3,939	2,617	675	726	4,018	2,436	600	739	3,775
45-49 " ..	1,314	720	481	2,515	1,400	776	448	2,624	1,385	703	454	2,542
50-54 " ..	608	869	238	1,715	696	880	252	1,828	631	803	270	1,704
55-59 " ..	325	917	123	1,370	323	924	117	1,364	300	877	144	1,321
60-64 " ..	134	842	47	1,023	183	908	52	1,143	174	882	57	1,113
65 years or over.....	109	1,242	18	1,369	130	1,371	35	1,536	136	1,380	27	1,543
Totals, Stated Ages	111,417	6,520	5,376	123,313	112,085	6,890	4,846	123,821	113,661	6,429	4,731	124,821
Ages not stated....	1	—	—	1	50	3	3	56	22	2	—	24
Totals, All Ages.....	111,418	6,520	5,376	123,314	112,135	6,893	4,849	123,877	113,683	6,431	4,731	124,845
Av. ages....	26·8	52·5	36·9	28·6	26·9	52·7	37·4	28·7	26·7	53·3	37·9	28·5
PERCENTAGES												
Under 20 years..	4·9	—	—	4·4	5·1	—	—	4·6	5·6	—	—	5·1
20-24 " ..	43·9	1·0	3·4	39·8	43·7	0·8	3·3	39·7	44·9	0·8	2·5	41·0
25-29 " ..	30·3	3·9	19·3	28·4	30·4	3·7	18·4	28·5	29·8	3·5	17·3	28·0
30-34 " ..	11·5	6·2	24·6	11·8	11·1	6·5	23·8	11·4	10·5	6·0	23·3	10·8
35-39 " ..	4·9	9·1	21·3	5·8	4·9	8·7	20·8	5·7	4·7	8·2	21·1	5·5
40-44 " ..	2·3	9·5	14·4	3·2	2·3	9·8	15·0	3·2	2·1	9·3	15·6	3·0
45-49 " ..	1·2	11·0	8·9	2·0	1·2	11·3	9·2	2·1	1·2	10·9	9·6	2·0
50-54 " ..	0·5	13·3	4·4	1·4	0·6	12·8	5·2	1·5	0·6	12·5	5·7	1·4
55-59 " ..	0·3	14·1	2·4	1·1	0·3	13·4	2·4	1·1	0·3	13·6	3·0	1·1
60-64 " ..	0·1	12·9	0·9	0·8	0·2	13·2	1·1	0·9	0·2	13·7	1·2	0·9
65 years or over.....	0·1	19·0	0·3	1·1	0·1	19·9	0·7	1·2	0·1	21·5	0·6	1·2
Totals, Stated Ages	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
Percentages of all ages.	90·4	5·3	4·4	100·0	90·5	5·6	3·9	100·0	91·1	5·2	3·8	100·0

¹ Exclusive of Newfoundland.

36.—Brides, by Age Groups and Marital Status, 1948-50

(Exclusive of the Territories)

Age Group	1948 ¹				1949				1950			
	Spin- sters	Wid- ows	Di- vorced	Total	Spin- sters	Wid- ows	Di- vorced	Total	Spin- sters	Wid- ows	Di- vorced	Total
NUMBERS												
Under 20 years..	28,614	8	7	28,629	29,179	8	8	29,195	30,507	19	11	30,537
20-24 " ..	51,709	238	554	52,501	51,800	199	499	52,498	52,545	181	393	53,119
25-29 " ..	19,645	737	1,321	21,703	19,601	641	1,247	21,489	19,239	560	1,110	20,909
30-34 " ..	6,790	697	1,123	8,610	6,426	720	1,036	8,182	6,311	692	985	7,988
35-39 " ..	2,982	713	848	4,543	3,053	800	773	4,626	2,871	807	837	4,515
40-44 " ..	1,388	701	445	2,534	1,374	777	478	2,629	1,436	782	472	2,690
45-49 " ..	663	800	252	1,715	715	897	273	1,885	647	858	230	1,735
50-54 " ..	278	728	103	1,109	309	895	103	1,307	302	742	128	1,172
55-59 " ..	136	604	41	781	162	570	48	780	176	625	51	852
60-64 " ..	66	488	23	577	68	494	17	579	68	505	14	587
65 years or over.....	43	568	—	611	58	575	8	641	58	647	9	714
Totals, Stated Ages	112,314	6,282	4,717	123,313	112,745	6,576	4,490	123,811	114,160	6,418	4,240	124,818
Ages not stated....	1	—	—	1	62	3	1	66	27	—	—	27
Totals, All Ages.....	112,315	6,282	4,717	123,314	112,807	6,579	4,491	123,877	114,187	6,418	4,240	124,845
Av. ages....	23.9	45.6	33.3	25.4	23.9	46.0	33.7	25.4	23.8	46.5	34.2	25.3
PERCENTAGES												
Under 20 years..	25.5	0.1	0.1	23.2	25.9	0.1	0.2	23.6	26.7	0.3	0.3	24.5
20-24 " ..	46.0	3.8	11.7	42.6	45.9	3.0	11.1	42.4	46.0	2.8	9.3	42.6
25-29 " ..	17.5	11.7	28.0	17.6	17.4	9.7	27.8	17.4	16.9	8.7	26.2	16.8
30-34 " ..	6.0	1.1	23.8	7.0	5.7	10.9	23.1	6.6	5.5	10.8	23.2	6.4
35-39 " ..	2.7	11.3	18.0	3.7	2.7	12.2	17.2	3.7	2.5	12.6	19.7	3.6
40-44 " ..	1.2	11.2	9.4	2.1	1.2	11.8	10.6	2.1	1.3	12.2	11.1	2.2
45-49 " ..	0.6	12.7	5.3	1.4	0.6	13.6	6.1	1.5	0.6	13.4	5.4	1.4
50-54 " ..	0.2	11.6	2.2	0.9	0.3	13.6	2.3	1.1	0.3	11.6	3.0	0.9
55-59 " ..	0.1	9.6	0.9	0.6	0.1	8.7	1.1	0.6	0.2	9.7	1.2	0.7
60-64 " ..	0.1	7.8	0.5	0.5	0.1	7.5	0.4	0.5	1.1	7.9	0.3	0.5
65 years or over.....	—	9.0	—	0.5	0.1	8.7	0.2	0.5	1.1	10.1	0.2	0.6
Totals, Stated Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentages of all ages..	91.1	5.1	3.8	100.0	91.1	5.3	3.6	100.0	91.5	5.1	3.4	100.0

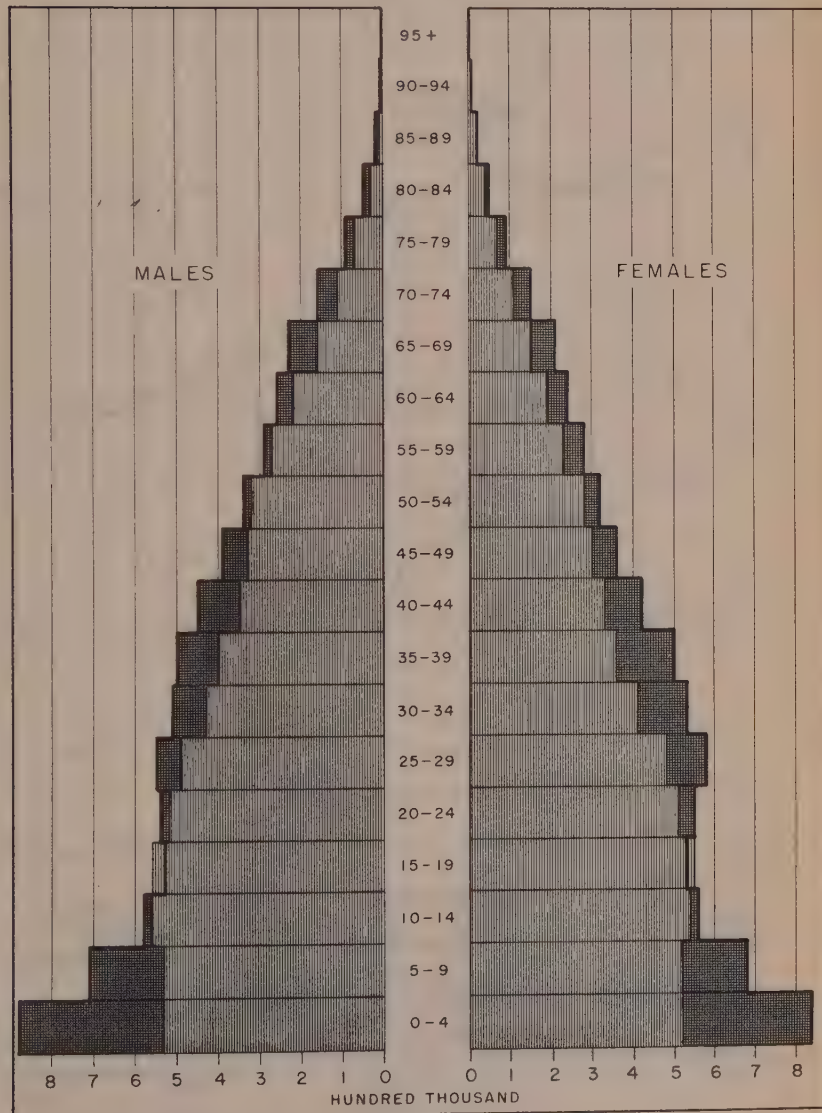
¹ Exclusive of Newfoundland.

Religious Denominations of Brides and Bridegrooms.—The distribution of brides and bridegrooms by religious denominations is roughly the same as that for the population as a whole. Table 37 shows the very strong influence that religion has on marriage. About 70 p.c. of all marriages are between persons of the same religious denomination; among those of Jewish faith, it was 95 p.c. in 1950; among Roman Catholics 89 p.c.; United Church 62 p.c.; and Eastern Orthodox 59 p.c.

GRAPHIC RECORD OF VITAL S

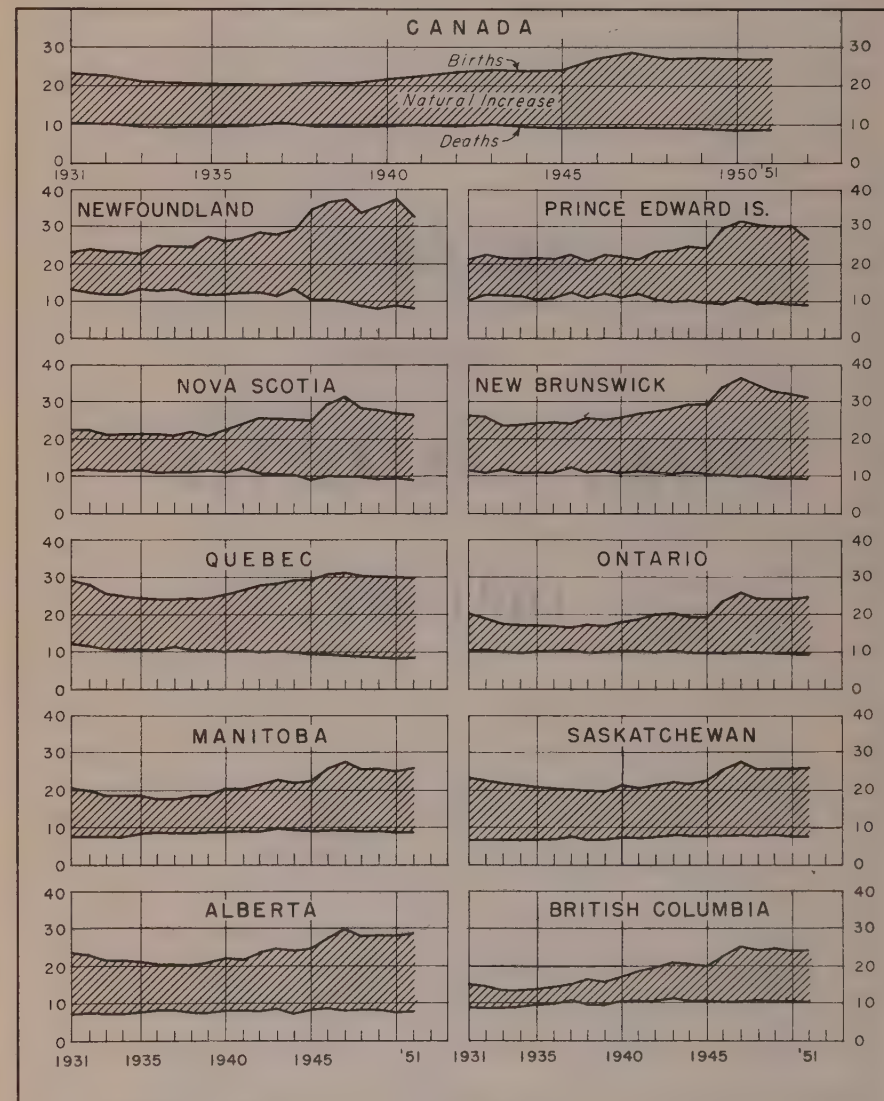
POPULATION OF CANADA BY SEX AND QUINQUENNIAL AGE GROUPS

1941 — 1951 —



BIRTH, DEATH AND NATURAL INCREASE RATES

Rates per 1,000 Population



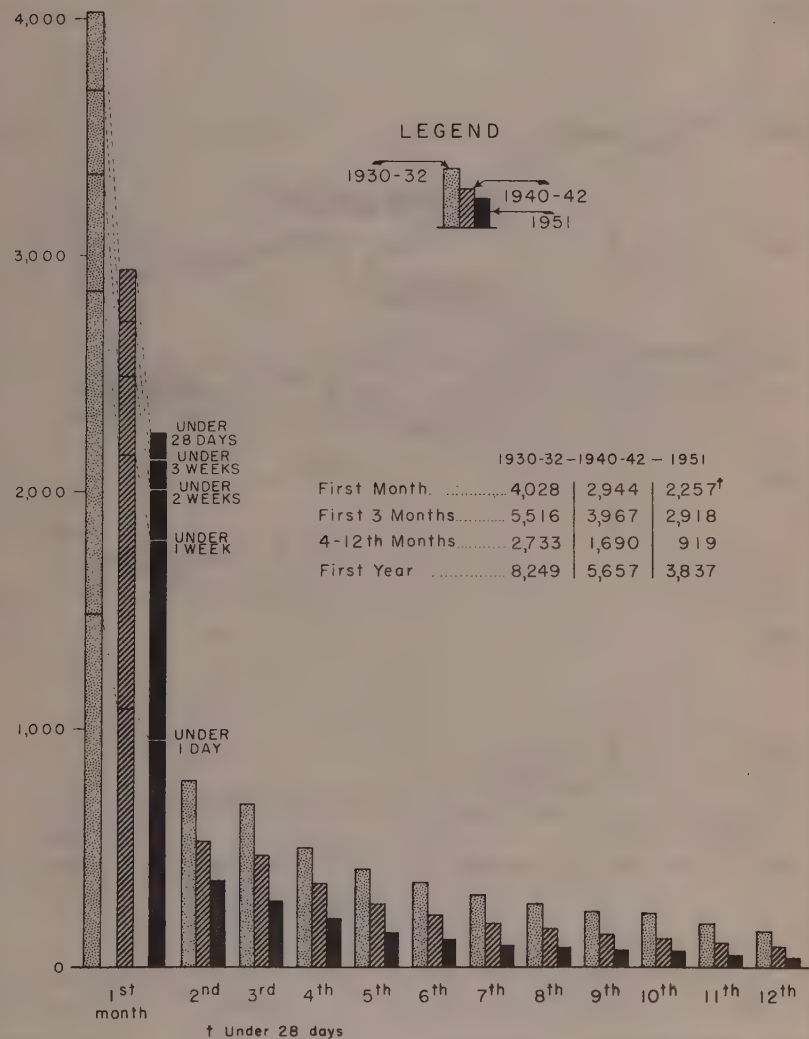
* Exclusive of the Yukon and Northwest Territories

STATISTICS IN CANADA* 1931-51

INFANT MORTALITY

AT EACH AGE PERIOD

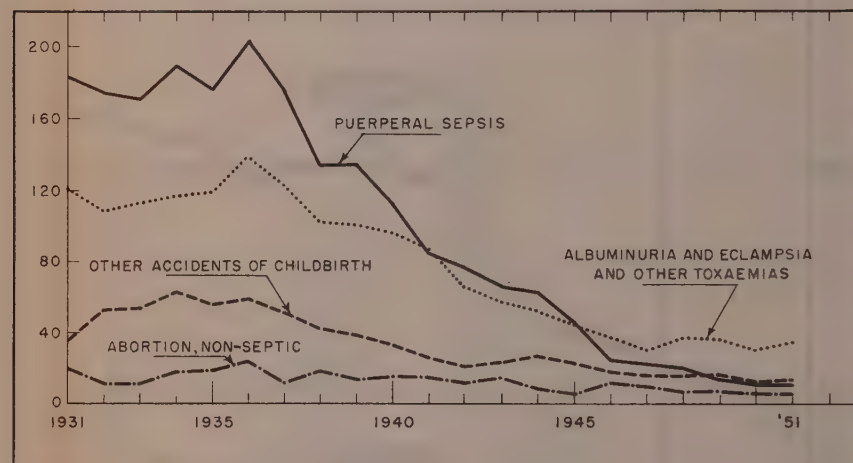
Rates per 100,000 Live Births



MATERNAL MORTALITY

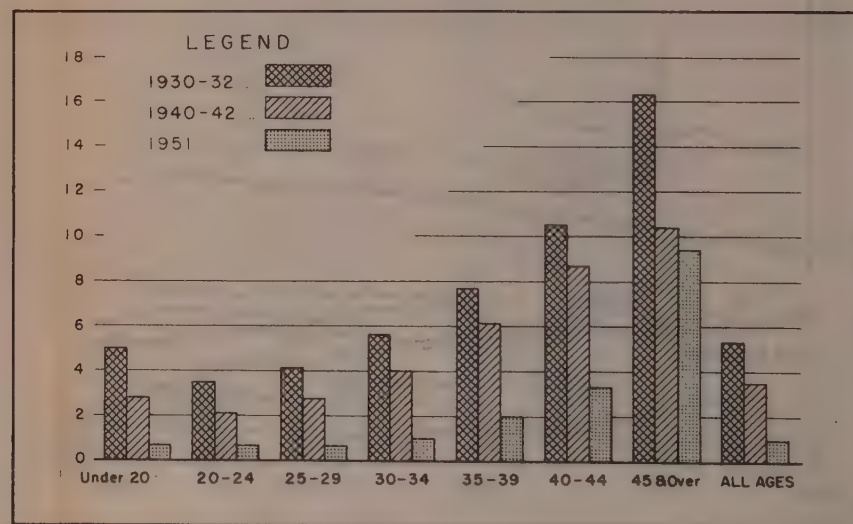
FROM CERTAIN GROUPS OF CAUSES

Rates per 100,000 Live Births



MATERNAL MORTALITY

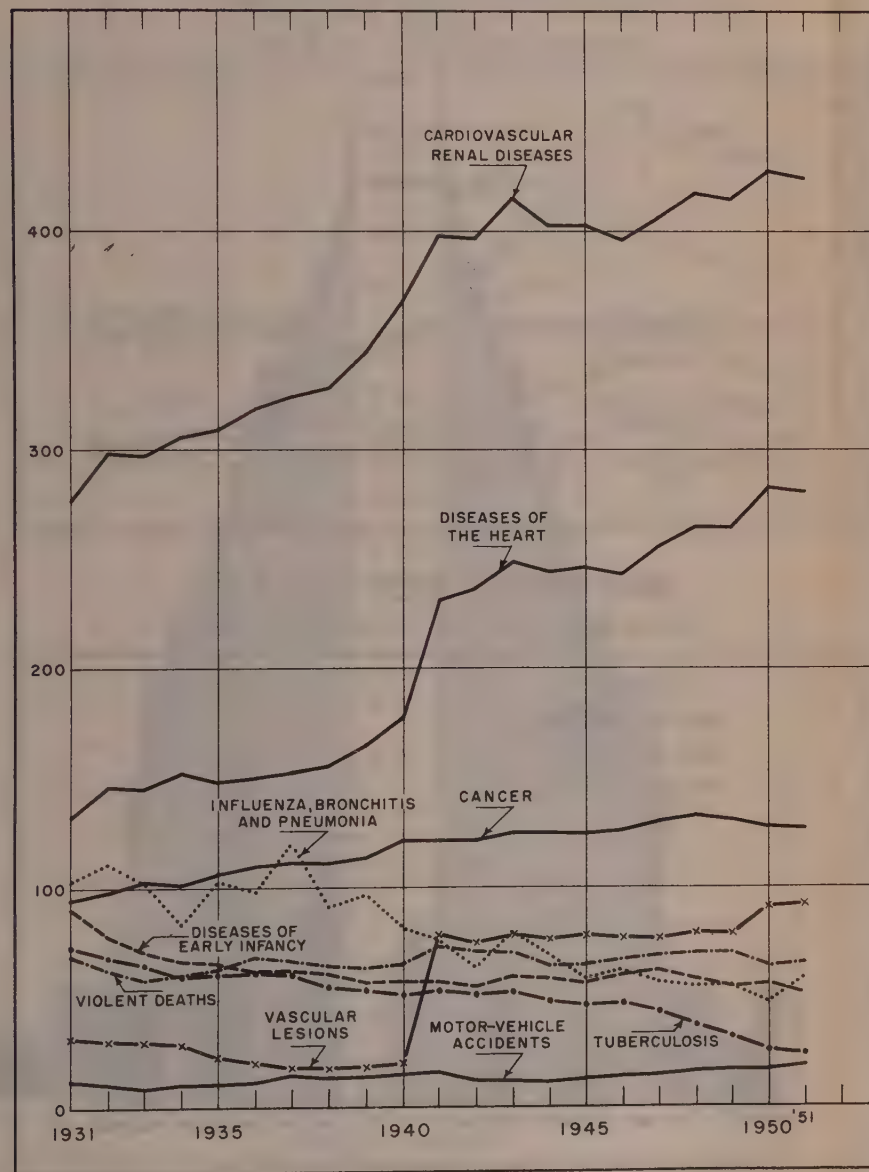
Rates per 1,000 Live Births, by Ages



(Continued)

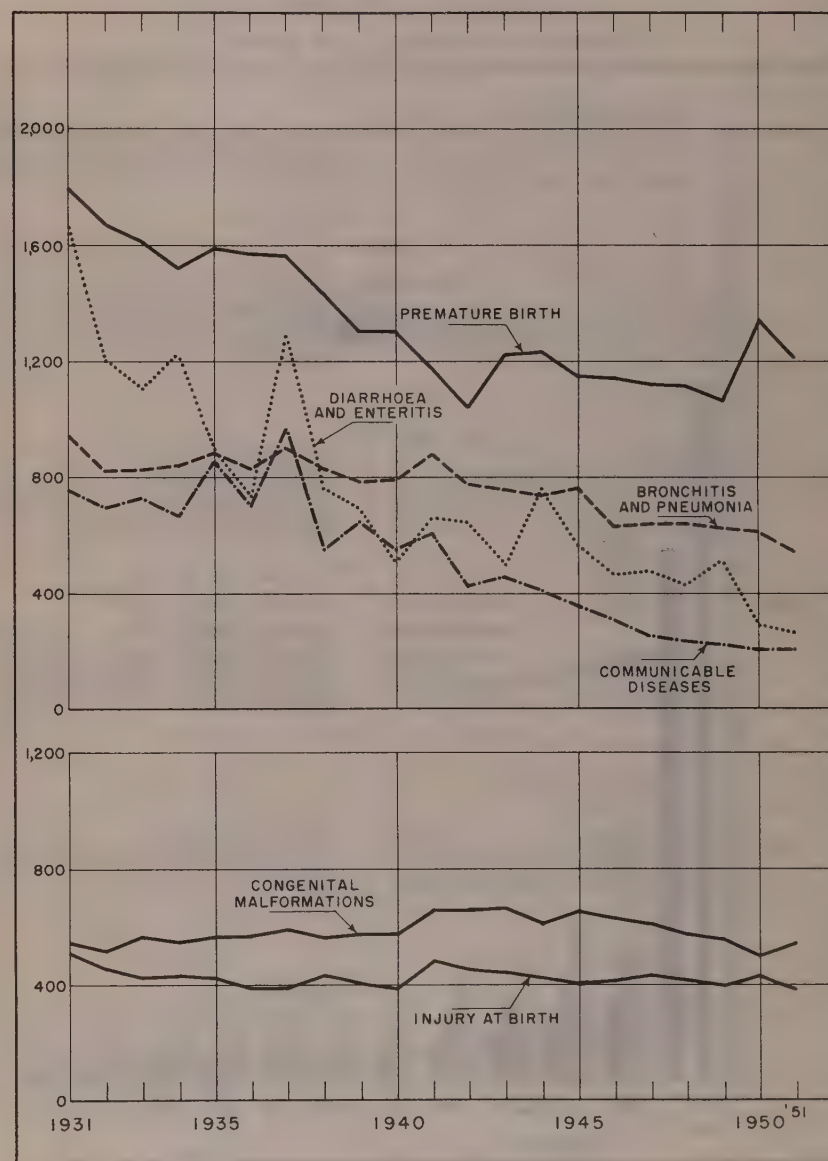
LEADING CAUSES OF DEATH

Rates per 100,000 Population



LEADING CAUSES OF INFANT MORTALITY

Rates per 100,000 Live Births



RECORD

OF

VITAL STATISTICS

1931-51



37.—Marriages, by Religious Denominations of Contracting Parties, 1948-50
(Exclusive of the Territories)

Year and Denominations of Bridegrooms	Denominations of Brides										Total Mar- riages	Per- cent- age
	Angli- can	Bap- tist	East- ern Ortho- dox	Jew- ish	Luth- eran	Pres- byter- ian	Rom- an Cath- olic ¹	United Church	Other Sects	Not Stat- ed		
1948 ²	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
Anglican.....	8,790	800	98	7	372	1,095	1,884	4,094	539	1	17,680	14.3
Baptist.....	837	2,302	28	—	124	257	331	1,045	259	—	5,183	4.2
Eastern Orthodox.....	93	18	914	2	43	26	281	115	37	1	1,530	1.2
Jewish.....	37	3	2	2,020	1	5	48	29	24	—	2,169	1.8
Lutheran.....	443	107	50	2	1,746	160	457	772	227	2	3,965	3.2
Presbyterian.....	1,320	317	31	2	175	2,542	696	1,612	235	2	6,932	5.6
Roman Catholic ¹	1,623	313	275	11	364	505	47,517	1,709	529	12	52,858	42.9
United Church.....	3,951	923	119	13	684	1,399	1,901	15,781	693	5	25,469	20.7
Other sects.....	568	232	46	13	229	197	693	838	4,669	1	7,486	6.1
Not stated.....	7	—	—	—	1	3	9	5	5	12	42	--
Totals, 1948.....	17,669	5,015	1,563	2,069	3,739	6,189	53,817	26,000	7,217	36	123,314	100.0
Percentages.....	14.3	4.1	1.3	1.7	3.0	5.0	43.6	21.1	5.9	--	100.0	70.0 ³
1949	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
Anglican.....	8,754	779	119	7	366	1,124	1,784	4,051	479	10	17,473	14.1
Baptist.....	705	2,152	19	—	118	255	346	979	253	2	4,829	3.9
Eastern Orthodox.....	99	25	1,037	2	61	34	352	130	45	3	1,788	1.4
Jewish.....	43	4	4	2,089	5	9	50	30	31	1	2,266	1.8
Lutheran.....	465	112	66	—	1,929	156	456	746	244	—	4,174	3.4
Presbyterian.....	1,236	270	30	3	177	2,385	656	1,592	190	4	6,543	5.3
Roman Catholic ¹	1,498	336	276	13	460	473	47,827	1,837	608	22	53,350	43.1
United Church.....	3,875	914	159	5	638	1,255	1,958	15,731	801	15	25,351	20.5
Other sects.....	622	279	59	15	242	231	760	847	4,969	4	8,028	6.5
Not stated.....	11	2	—	—	4	4	14	13	2	25	75	0.1
Totals, 1949.....	17,308	4,873	1,769	2,134	4,000	5,926	54,203	25,956	7,622	86	123,877	100.0
Percentages.....	14.0	3.9	1.4	1.7	3.2	4.8	43.8	21.0	6.2	0.1	100.0	70.1 ³
1950	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
Anglican.....	8,469	700	111	11	374	976	1,757	3,955	554	2	16,909	13.5
Baptist.....	679	2,173	27	—	132	225	427	832	250	—	4,795	3.8
Eastern Orthodox.....	97	24	1,047	1	70	30	351	149	50	1	1,820	1.5
Jewish.....	37	5	—	1,933	6	9	28	32	22	—	2,072	1.7
Lutheran.....	402	123	51	2	2,037	144	493	731	243	—	4,228	3.4
Presbyterian.....	1,226	257	36	4	157	2,285	693	1,494	226	2	6,378	5.1
Roman Catholic ¹	1,659	333	307	20	521	467	48,878	1,820	632	6	54,643	43.8
United Church.....	3,886	888	127	10	666	1,208	1,970	15,894	755	3	25,410	20.4
Other sects.....	631	252	53	9	268	221	809	931	5,354	3	8,531	6.8
Not stated.....	6	2	—	—	1	—	6	2	3	39	59	--
Totals, 1950.....	17,092	4,757	1,759	1,990	4,232	5,565	53,412	25,890	8,089	59	124,845	100.0
Percentages.....	13.7	3.8	1.4	1.6	3.4	4.5	44.4	20.7	6.5	--	100.0	70.6 ³

¹ Includes Greek Catholic.
between contracting parties of the same religious denomination.

² Exclusive of Newfoundland.

³ Percentage of marriages

Subsection 2.—Dissolutions of Marriage (Divorces)

For many years after Confederation, the number of divorces granted in Canada were few. There were less than 20 divorces in every year before 1900, 23 in 1903, 51 in 1909 and 60 in 1913. These numbers represent less than one per 1,000 of the yearly number of marriages.

The end of World War I in 1918 saw an increase in the number of divorces. The generally unsettled conditions and the long separation between men on Active Service and their wives may have contributed to this increase. Changes in law and procedure may also have been a further factor—at present, Quebec and Newfoundland are the only provinces in which applicants for divorce must secure a private Act of Parliament. The number of divorces had increased to 114 in 1918; 608 in

1926; 700 in 1931; 1,570 in 1936; and 2,369 in 1940. From 1940, the numbers increased annually to a peak of 8,199 in 1947, declining gradually since that year until in 1950 they were 5,373 or 34 p.c. lower than in 1947.

38.—Dissolutions of Marriage (Divorces), by Provinces, 1947-51

Item	Granted by Parliament of Canada		Granted by the Courts								Canada ¹
	Nfld.	Que.	P.E.I.	N.S.	N.B.	Ont.	Man.	Sask.	Alta.	B.C.	
Numbers—											
1947	...	348	18	207	236	3,509	665	509	881	1,826	8,199
1948	...	292	49	78 ²	211	3,107	477	333	651	1,683	6,881
1949	...	350	20	181	202	2,396	411	289	594	1,491	5,934
1950	5	234	13	199	194	2,228	309	280	534	1,377	5,373
1951 ^D	4	289	10	187	156	2,002	361	226	589	1,339	5,163
Percentages—											
1947	...	4.2	0.2	2.5	2.9	42.8	8.1	6.2	10.7	22.3	100.0
1948	...	4.2	0.7	1.1 ²	3.1	45.2	6.9	4.8	9.5	24.5	100.0
1949	...	5.9	0.3	3.1	3.4	40.4	6.9	4.9	10.0	25.1	100.0
1950	0.1	4.4	0.2	3.7	3.6	41.5	5.8	5.2	9.9	25.6	100.0
1951 ^D	0.1	5.6	0.2	3.6	3.0	38.8	7.0	4.4	11.4	25.9	100.0

¹ Exclusive of the Territories.
absolute at the end of three months.

² By a new rule adopted in August 1948, a *Decree Nisi* became a result, a number of divorces did not become effective until the following year.

Section 6.—Vital Statistics of the Yukon and Northwest Territories

The vital statistics of the Yukon and Northwest Territories have been collected since 1924. These statistics are not presented with those of the ten provinces in the tables of this Chapter, because the figures are not considered complete in that the personal particulars in many cases are not available, and the small and varying population of each year is not accurately known.

39.—Vital Statistics of the Yukon and Northwest Territories, 1941-50, with Five-Year Averages, 1926-40

NOTE.—Figures for 1944 to 1950 are by place of residence; for previous years by place of occurrence.

Year	Yukon Territory			Northwest Territories		
	Births	Marriages	Deaths	Births	Marriages	Deaths
	No.	No.	No.	No.	No.	No.
Averages, 1926-30.....	33	14	54	158	24	185
Averages, 1931-35.....	49	24	61	190	41	137
Averages, 1936-40.....	67	36	72	228	72	177
1941.....	72	36	67	314	82	306
1942.....	96	36	108	369	109	222
1943.....	99	67	120	403	94	304
1944.....	136	94	100	316	66	349
1945.....	123	69	87	511	122	478
1946.....	146	66	80	593	177	347
1947.....	224	61	77	625	111	376
1948.....	274	77	112	645	117	370
1949.....	309	76	86	644	134	434
1950.....	316	84	99	622	154	332

Section 7.—Canadian Life Tables

Two official life tables for Canada and regions have been published: the first was calculated on the basis of the deaths of 1930-32 and the census population of 1931; the second on the basis of the deaths of 1940-42 and the census population of 1941. In addition, tables have been computed for Canada as a whole for the

years 1945 and 1947 based on estimated populations by sex and age and the deaths recorded as having occurred during those years. The life table for 1947 is given in abbreviated form in Table 40.

40.—Canadian Life Table, 1947

Age	Males				Females			
	Number Living at Each Age	Number Dying Between Each Age and the Next	Probability of Dying at Each Age	Expectation of Life	Number Living at Each Age	Number Dying Between Each Age and the Next	Probability of Dying at Each Age	Expectation of Life
Under 1 year.....	100,000				100,000			
1 year.....	94,802	5,198	·05198	65·18		4,003	·04003	69·05
2 years.....	94,394	408	·00431	67·75	95,997	362	·00377	70·93
3 ".....	94,157	237	·00251	67·04	95,635	193	·00202	70·19
4 ".....	93,987	170	·00180	66·20	95,442	141	·00147	69·33
5 ".....	93,840	147	·00157	65·32	95,301	114	·00120	68·43
10 ".....	93,298	542	·00140	64·43	95,187	377	·00101	67·52
15 ".....	92,838	460	·00091	59·79	94,810	330	·00060	62·78
20 ".....	92,110	728	·00132	55·07	94,480	583	·00101	57·99
25 ".....	91,216	894	·00185	50·48	93,897	739	·00149	53·33
30 ".....	90,272	944	·00204	45·95	93,158	780	·00163	48·73
35 ".....	89,254	1,018	·00212	41·41	92,378	900	·00182	44·12
40 ".....	87,912	1,342	·00264	36·85	91,478	1,142	·00218	39·53
45 ".....	86,008	1,904	·00367	32·37	90,336	1,688	·00325	35·00
50 ".....	83,083	2,925	·00576	28·03	88,648	2,168	·00438	30·61
55 ".....	78,953	4,130	·00859	23·92	86,480	3,045	·00608	26·32
60 ".....	72,981	5,972	·01299	20·04	83,435	4,353	·00889	22·18
65 ".....	64,604	8,377	·02010	16·46	79,082	6,506	·01398	18·25
70 ".....	53,622	10,982	·03091	13·25	72,576	9,267	·02213	14·65
75 ".....	40,618	13,004	·04576	10·44	63,309	12,613	·03553	11·41
80 ".....	26,489	14,129	·06849	7·96	50,696	15,414	·05705	8·60
85 ".....	13,486	13,003	·10527	5·87	35,282	15,992	·09259	6·24
90 ".....	4,614	8,872	·16198	4·21	19,290	12,260	·15016	4·37
95 ".....	843	3,771	·24453	2·94	7,030	5,716	·23748	2·98
100 ".....	56	787	·35882	2·02	1,314	1,234	·36234	1·98
		56	·51075	1·35	80	80	·53246	1·28

Life tables give a summary of the health and general conditions of survival of the population in a conventional, standard form. A hypothetical number (100,000) of births of each sex is assumed. The life tables show how, on the basis of the mortality rates at each age in the given years, these 100,000 of each sex are reduced in number by death. For example, during the year 1947, of 100,000 males born, 5,198 died in their first year, so that 94,802 survived to one year of age; 408 died in their second year, so that 94,394 survived to two years of age; and so on. At 100 years of age,

only 56 of the original 100,000 would have survived. The probability of death at each age is the ratio between the number of deaths and the population at each age. Finally, the expectation of life is the average number of years which a person might expect to live if the mortality rates in the given years remained constant.

Mortality rates for males are higher at all ages than for females, particularly in infancy. Infant mortality in 1940-42 was 62 per 1,000 live births for males compared to 49 per 1,000 for females. Because infant mortality is still so high, the expectation of life at birth is less for both sexes than at age one. In 1947 males who had survived their first year had an expectation of life of almost 68 years and females of almost 71 years. The expectation of life of a boy at age 15 was 55 years, and of a girl 58 years. At age 25, it was about 46 years for men and almost 49 for women. At age 70, it was 10·4 years for men and 11·4 years for women.

Table 41 summarizes the life expectancy figures for 1931, 1941 and 1947. During this period, life expectancy at birth increased from 60 to over 65 years for males and from 62 to 69 years for females. The greatest increases were among the younger ages for both sexes but were appreciably higher among females than among males and for females extended into the older ages. There was little or no appreciable increase between 1931 and 1947 in life expectancy among males over 40, whereas for females the rates increased at all ages up to 80. Increases in life expectancy among women of child-bearing age are worthy of note.

41.—Expectation of Life, 1931, 1941 and 1947

Age	1931		1941		1947	
	Male	Female	Male	Female	Male	Female
Under 1 year.....	60·00	62·10	62·96	66·30	65·18	69·05
1 year.....	64·69	65·71	66·14	68·73	67·75	70·93
2 years.....	64·46	65·42	65·62	68·16	67·04	70·19
3 ".....	63·84	64·75	64·88	67·38	66·20	69·33
4 ".....	63·11	63·99	64·07	66·56	65·32	68·43
5 ".....	62·30	63·17	63·22	65·69	64·43	67·52
10 ".....	57·96	58·72	58·70	61·08	59·79	62·78
15 ".....	53·41	54·15	54·06	56·36	55·07	57·99
20 ".....	49·05	49·76	49·57	51·76	50·48	53·33
25 ".....	44·83	45·54	45·18	47·26	45·95	48·73
30 ".....	40·55	41·38	40·73	42·81	41·41	44·12
35 ".....	36·23	37·19	36·26	38·37	36·85	39·53
40 ".....	31·98	33·02	31·87	33·99	32·37	35·00
45 ".....	27·79	28·87	27·60	29·67	28·03	30·61
50 ".....	23·72	24·79	23·49	25·46	23·92	26·32
55 ".....	19·88	20·84	19·64	21·42	20·04	22·18
60 ".....	16·29	17·15	16·06	17·62	16·46	18·25
65 ".....	12·98	13·72	12·81	14·08	13·25	14·65
70 ".....	10·06	10·63	9·94	10·93	10·44	11·41
75 ".....	7·87	7·98	7·48	8·19	7·96	8·60
80 ".....	5·61	5·92	5·54	6·03	5·87	6·24
85 ".....	4·10	4·38	4·05	4·35	4·21	4·37
90 ".....	2·97	3·24	2·93	3·13	2·94	2·98
95 ".....	2·14	2·40	2·09	2·26	2·02	1·98
100 ".....	1·53	1·77	1·46	1·64	1·35	1·28

Section 8.—Communicable Diseases

The national reporting of communicable diseases in Canada was undertaken in 1933 by the Dominion Bureau of Statistics, at the request of the Federal Department of Pensions and National Health in co-operation with the Provincial Departments of Health. Since then, the Health and Welfare Division of the Bureau has been responsible for the weekly compilation and analysis of communicable diseases except for a short period during 1939-40, when the work was transferred to the Department

of Pensions and National Health. The reports of cases of venereal diseases are included in the current analyses and a standard report form is used by all the provinces.

Table 42 indicates the relative number of cases of certain communicable diseases reported to the Dominion Bureau of Statistics by the Provincial Departments of Health in 1950. The reporting of two diseases, dysentery and rubella, is not compulsory in all provinces and the totals for Canada should, therefore, be accepted with reservations.

42.—Cases of Certain Communicable Diseases Reported by Provincial Departments of Health, 1950

(Exclusive of the Territories)

Disease	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Chickenpox.....	41	—	1,418	94	8,756	13,225	1,747	2,234	3,083	5,004	35,602
Diphtheria.....	13	—	11	18	215	55	16	15	15	63	421
Dysentery ¹	—	—	2	—	239	187 ²	132	6	2 ²	191	759
Amoebic.....	—	—	—	—	—	8	1	—	—	2	11
Bacillary.....	—	—	2	—	239	178	131	6	1	189	748
Encephalitis (infectious).....	—	—	—	—	2	16	5	12	5	1	41
Influenza (epidemic).....	—	—	1,464	1	—	2,091	182	27	—	460	4,225
Measles.....	68	—	438	1,858	16,733	25,973	1,640	1,602	1,683	5,658	55,653
Meningitis (meningococcal).....	2	—	13	15	19	84	17	14	12	15	191
Mumps.....	86	—	2,488	168	6,202	17,285	619	2,831	5,350	8,642	43,671
Polio myelitis (epidemic).....	3	67	17	15	77	376	22	120	138	76	911
Rubella ³	10	—	1,450	38	470	21,354	35	1,792	4,865	7,903	37,917
Scarlet fever.....	133	—	108	76	2,802	1,613	457	369	2,329	869	8,756
Tuberculosis.....	624	86	282	763	4,897	1,431	946	5374	1,036	1,827	12,429
Pulmonary.....	613	78	276	747	4,807	5	924	597	976	1,683	10,501
Non-pulmonary.....	11	8	6	16	90	5	22	105	60	144	462
Typhoid and paratyphoid.....	12	—	6	26	414	60	10	22	15	153	718
Undulant fever.....	—	—	1	1	116	56	32	8	13	22	249
Venereal diseases.....	495	42	813	678	7,028	3,958	1,495	1,330	2,147	4,234	22,220
Syphilis.....	187	17	313	265	2,782	1,137	225	435	165	572	6,098
Gonorrhoea.....	308	25	500	413	4,244	2,821	1,267	894	1,981	3,053	16,106
Other venereal diseases.....	—	—	—	—	2	—	3	1	1	9	16
Whooping cough.....	71	—	750	200	4,488	4,182	483	146	122	1,740	12,182

¹ Not reportable in New Brunswick. ² Including 1 case where type was not stated. ³ Reporting not compulsory in New Brunswick and Manitoba. ⁴ Including 35 cases where type was not stated. ⁵ Type not segregated.

CHAPTER VI.—PUBLIC HEALTH, WELFARE AND SOCIAL SECURITY

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

THE DEVELOPMENT OF PUBLIC HEALTH, WELFARE AND SOCIAL SECURITY IN CANADA*

Evolution of Provincial and Municipal Administration.—Public health and welfare, traditionally and constitutionally, have been regarded as matters primarily for provincial and municipal action. While the British North America Act does not clearly or specifically refer to public welfare or social security, the references therein to such matters as eleemosynary institutions, hospitals, asylums, public charities, etc., have fixed in the minds of most authorities the principle that, under the Canadian constitution, the provinces rather than the federal authorities have constitutional responsibility in the health and welfare field. The Federal Government, however, is specifically assigned jurisdiction over "quarantine and the establishment of marine hospitals".

Many of the earliest welfare undertakings were initiated not by provincial or municipal governments, but by voluntary organizations led by public-spirited citizens. It was voluntary citizen initiative in most of the early Canadian communities that led to the establishment of orphanages, hospitals, homes for the

* Contributed by Dr. G. F. Davidson, Deputy Minister of Welfare, Département of National Health and Welfare.

aged, other institutions, and health and welfare agencies working within the homes of families to bring help and assistance where needed. As the worth of these programs was proved and as the financial burden of carrying them became too great for private philanthropy, municipal governments, first of all, responded to appeals for help by granting financial assistance without assuming administrative responsibility. Gradually, however, as municipal financial involvement became greater, the necessity for taking over certain of these undertakings as direct administrative responsibilities of the municipal authorities became apparent, and municipalities found themselves in the business of providing public health and welfare services at public expense for the citizens of their respective communities.

This process by which financial and subsequently administrative responsibility for certain health and welfare services was imperceptibly shifted from voluntary to municipal auspices repeated itself, as time went on, at the municipal-provincial level. Prior to the outbreak of World War I, welfare services were provided almost exclusively by local voluntary agencies and by the municipal authorities. Beginning, however, with the enactment of the first Workmen's Compensation Act in Ontario in 1914, there followed a series of interventions by provincial governments in the public welfare and social security field, which established during the years between the two world wars a clear pattern of provincial responsibility for providing direct social services in some instances and assisting municipalities in other instances in the provision of local public welfare programs. A number of other provincial governments quickly followed Ontario's lead with respect to workmen's compensation. Coincident with the granting of the women's suffrage, the Manitoba Government in 1916 passed the first mothers' allowances legislation. Once again this was followed by similar legislation in a number of other provinces.

Each provincial enactment, whether in the form of workmen's compensation legislation, mothers' allowances, child protection legislation or laws providing for the establishment of juvenile courts and juvenile reform institutions, added successively to the predominance of provincial government authority in the social welfare field; and as the legislative, administrative, supervisory and financial responsibilities of the provincial governments increased, such responsibilities carried by the municipalities correspondingly diminished.

Provincial responsibility in the health field was recognized at an early date. The duties specifically assigned by the British North America Act, together with the residual powers generally accepted under interpretations of the "property and civil rights" clause of Sect. 92, stimulated this development. A Department of Public Health, succeeding an earlier Central Board of Health, was created by the Assembly of Nova Scotia in 1904 and several provinces followed the example of the Public Health Act of New Brunswick of 1918 which created a full-time Cabinet post for such a Department. A similar growth in the welfare field was to take place in the late 1930's and early 1940's, with the establishment of separate Departments of Welfare or the enlargement of the existing Departments of Health to embrace both health and welfare.

Development of Federal Responsibility.—During the years of World War I and the following decade, there was little or no indication of public support for the intervention of the Federal Government in what appeared to be normal peacetime provincial and local areas of responsibility. In the aftermath of World War I, the federal authority found itself committed to an extensive program of health and welfare services for discharged and pensionable ex-service men. In this and in a

number of other specialized fields, the Federal Government slowly began to acquire a certain familiarity with the nature of the problems involved, although there was little thought at the time, either in the minds of governments or on the part of the public generally, that the federal authority had any proper responsibility in this field.

The year 1919 is significant since it marks the establishment of a Federal Department of Health, whose functions included quarantine and immigration medical services, narcotic control, food and drug standards, child welfare, housing and the supervision of a venereal disease control grant. Beginning with the year ended Mar. 31, 1920, with the exception of a few years in the 1930's, money from this grant was available to assist the provinces in the establishment and operation of a series of venereal disease clinics. In 1928, the Departments of Health and Soldiers' Civil Re-establishment were merged.

Not until 1927, however, did the Federal Government enter into a commitment in the field of public welfare which could be regarded as continuous or permanent. Here again, the pattern that had manifested itself with regard to the voluntary and municipal agencies in the first instance, and later with the municipal and provincial governments, repeated itself in the area of provincial-federal relationships.

Recognizing that the costs of providing old age pensions on a means-test basis for persons 70 years of age or over were too great to be borne by the provincial governments alone, the Federal Government passed the Old Age Pensions Act in 1927 authorizing federal tax funds to be made available to reimburse provincial governments for 50 p.c. of the costs of old age pensions paid in conformity with standards laid down in federal legislation. In taking this step, the federal authority entered the field of public welfare and social security legislation for the first time on a continuing basis. Just as the year 1914 marked an important point of transition in the shift of the burden of administrative and financial responsibility for public social services from the municipal to the provincial level, so the year 1927 was significant as the beginning of a new phase in which, slowly at first but in later years with gathering momentum, the financial and administrative responsibility for public social services shifted from provincial governments to the Federal Government.

For a decade or more following the first significant step in 1927 the trend was slow to develop. The position taken by the Federal Government was that public welfare services, under the constitution, were the exclusive responsibility of the provinces and that, while federal financial assistance might be made available to help in carrying the burden, the basic financial and administrative responsibility rested with the provinces. It was on this basis that the old age pension plan of 1927 was conceived and carried out. It was likewise on this basis that the unemployment relief program during the depression years was undertaken, with all three levels of government sharing in the financial responsibility, but with most of the administrative responsibility resting on the provincial and local authorities.

During these years the provincial governments began to protest the thesis that responsibility for large-scale social services should be carried by the provincial authorities. They pointed out that problems of such magnitude could be dealt with satisfactorily only by that governmental jurisdiction which had the broadest and most extensive taxing powers, namely, the Federal Government. Strong pressures developed on the provincial and municipal levels to have the Federal Government take over responsibility for unemployment relief. This trend, running counter to the normal provincial concern regarding federal encroachment in provincial

fields, led in 1940 to the constitutional amendment of the British North America Act which made it possible for the Federal Government to enact unemployment insurance legislation. The Unemployment Insurance Act of 1940 was the first in a series of steps taken by which the Federal Government has been committed to a continuing responsibility for a number of major programs in the public welfare and social security fields. Provincial expenditures for health services, however, continue to exceed those of the Federal Government despite the increased federal commitments under the National Health Grants commencing in 1948.

Responding to the development of public opinion in favour of a larger measure of social security, the Federal Government has assumed direct administrative as well as financial responsibility for specific social security programs. One example of this was, of course, unemployment insurance, already mentioned, but more significant still was the enactment of the Family Allowances Act of 1944 whereby the Federal Government entered the social security field on a large scale. Under this Act, monthly allowances are paid for 4,500,000 children under 16 years of age at a yearly cost now running in excess of \$330,000,000. By this Act, and by the establishment at the same session of Parliament of a Department of National Health and Welfare, the Federal Government made it clear that it was prepared to accept a continuing responsibility for developing and carrying out a health, social security and social welfare policy on broad lines for the benefit and protection of the Canadian people.*

Through the establishment, both on provincial and on federal levels, of organized departments of public welfare, the machinery now exists for co-operative and integrated planning of national and provincial social welfare services. While the outlines are not yet clear as to the respective roles of the provincial governments and the Federal Government, the creation of these departments has combined to give the development of public social services a tremendous impetus during the past decade.

Current Social Security Program.—Through the enactment of unemployment insurance in 1940, the passage of the Family Allowances Act of 1944, the creation of the Department of National Health and Welfare in the same year, the passage of improved and extended veterans legislation during the later war and the post-war years, the inauguration of the national health program in 1948, and finally through the enactment in 1951 of the Old Age Security Act, the Old Age Assistance Act and the Blind Persons Act, the Federal Government has established on the national level the broad framework of a social security program which, while yet incomplete, has the elements of an organized and planned social security development.

While municipal and provincial governments still carry heavy responsibilities in the public welfare field, the administrative and financial responsibilities assumed by the federal authority have greatly outstripped these in the past few years. Further information is provided in the Sections that follow concerning the various activities and programs.

Expenditures on Health, Welfare and Social Security.—Governmental expenditures in the fields of health, welfare and social security are now larger than expenditures for any other peacetime purpose and rank second only to expenditures for national defence. While definitions may vary as to what should or should

* The Department of National Health and Welfare Act (3 Geo. VI, c. 22, Sect. 5) states, in part: "The duties, powers and functions of the Minister shall extend to and include all matters relating to the promotion or preservation of the health, social security and social welfare of the people of Canada over which the Parliament of Canada has jurisdiction".

not be included in any tabulation of health, welfare or social security expenditures, it may safely be estimated that the total of federal, provincial and municipal expenditures in these fields stands currently at not less than \$1,300,000,000 annually. Under some tabulations, in fact, the figure is shown to be as high as \$1,500,000,000 annually. Expressed in another way, health, welfare and social security expenditures in 1952 will amount to not less than 20 p.c. of total expenditures made by all governments—federal, provincial and municipal.

These formidable figures of current expenditure contrast sharply with the modest amounts expended only a generation ago for the same purposes. In 1871, four years after Confederation, Canada, with a population of approximately 3,700,000, spent around \$1,000,000 on public health and welfare programs. This amount had risen to not more than \$15,000,000 in 1913 when the population numbered about 7,530,000. Even allowing for the fact that present population exceeds 14,000,000 and that price levels have risen with the post-war inflation, current amounts spent are still striking. They are evidence of the increased importance which governments generally have attached to meeting the social needs of the people.

Expenditures under the 1951 Legislation on Old Age Security, Old Age Assistance and Blind Persons' Allowances.—The inauguration of the new old age security program at the beginning of 1952 added almost \$225,000,000 annually to the Federal Government's continuing commitments in the field of social security. Annual costs under the Old Age Security Act, by which monthly pensions of \$40 are provided free of means-test to all persons over the age of 70 with 20 years' residence in Canada, are expected to commence at a level around \$320,000,000 annually—about the same as for family allowances. Within a few years, however, because of the rapidly ageing population, expenditures under the Old Age Security Act are expected to outstrip family allowance expenditures, thus making the old age security program Canada's most expensive social security undertaking.

In addition to payments under the Old Age Security Act to persons over the age of 70, provision was also made beginning Jan. 1, 1952, under the Old Age Assistance Act, for sharing with provincial governments the cost of old age assistance payments provided on the basis of need to persons between the ages of 65 and 69. Costs under this program, shared on a fifty-fifty basis by the Federal Government and the provinces, are expected to reach a level of \$40,000,000 in the first year of operation, and to rise in a relatively short time to an annual expenditure of \$60,000,000 or more.

The third related legislative development which took effect at the beginning of 1952 was the passage of the Blind Persons Act under which provision is made for continuing the cash assistance, previously paid under joint federal-provincial auspices to blind persons through the Old Age Pensions Act, on an extended and somewhat more generous basis and related exclusively to the needs of the blind. Under the new Blind Persons Act the Federal Government will reimburse the provinces for 75 p.c. of the cost of blindness allowances paid to eligible blind persons between the ages of 21 and 69. Allowances under this legislation are paid on the basis of need, the maximum amount payable being \$40 monthly as in the case of old age assistance and old age security. Blind persons reaching the age of 70 give up the allowances received under this legislation and become eligible for the old age security benefit on a basis free of the means-test.

While more generous conditions of eligibility have been established for the blindness allowances due to more generous means-testing and a reduction in the residence requirement from 20 years to 10 years, expenditures under the Blind Persons Act are expected to be smaller than expenditures formerly made for pensions to the blind under the Old Age Pensions Act. The reason for this is, of course, that blind persons 70 years of age or over are not carried as charges under the Blind Persons Act but are transferred to the new Old Age Security Act. In consequence, annual expenditures under the Blind Persons Act for means-test allowances to blind persons between the ages of 21 and 69 are expected to run between \$3,000,000 and \$4,000,000 annually, 75 p.c. of this cost being reimbursed to the provinces by the Federal Government.

In summary, annual expenditures under these three new enactments are expected to be not less than \$364,000,000 in the first year of operation and to rise steadily in subsequent years. Not all of this, of course, is additional expenditure, since the Old Age Security Act, the Old Age Assistance Act and the Blind Persons Act absorb among them the total expenditure formerly made under the Old Age Pensions Act. A comparison of the expenditures formerly made under the Old Age Pensions Act with respect to aged and blind persons with the expenditures anticipated under the new legislation is shown in the following table.

1.—Expenditures for 1951 and 1952 under Old Age Security Act, 1951, Old Age Assistance Act, 1951, Blind Persons Act, 1951, and Old Age Pensions Act, 1927

(Millions of dollars)

Legislation	1951	1952	Increase or De- crease	Legislation	1951	1952	Increase or De- crease
Old Age Security Act, 1951—				Old Age Pensions Act, 1927—			
Federal expenditures.....	...	320	+320	Old Age Pensions—			
Provincial expenditures.....	Federal expenditures.....	103.5	...	-103.5
Totals.....	...	320	+320	Provincial expenditures...	34.5	...	-34.5
Old Age Assistance Act, 1951—				Totals.....	138.0	...	-138.0
Federal expenditures.....	...	20	+20	Pensions for the Blind—			
Provincial expenditures.....	...	20	+20	Federal expenditures.....	4.5	...	-4.5
Totals.....	...	40	+40	Provincial expenditures...	1.5	...	-1.5
Blind Persons Act, 1951—				Totals.....	6.0	...	-6.0
Federal expenditures.....	...	3	+3	All Programs—			
Provincial expenditures.....	...	1	+1	Federal expenditures.....	108	343	+235
Totals.....	...	4	+4	Provincial expenditures...	36	21	-15
				Grand Totals.....	144	364	+220

PART I.—PUBLIC HEALTH*

The planning, supervising and financing of public health and medical care services in Canada rest mainly with the provinces while the actual administration of services is conducted, in most provinces, by municipal and other local authorities. The Federal Government provides consultative and specialist services, assists in the financing of provincial health activities through the National Health Program and maintains, as well, services for special groups such as veterans and Indians. The functions of the Federal Government are described in Section 1, provincial and municipal health activities are reviewed in Section 2, and institutional statistics are given in Section 3.

* Sections 1 and 2 of this Part were prepared by the Research Division, Department of National Health and Welfare, Ottawa.

Section 1.—Federal Health Activities

Federal participation in health matters is largely centred in the Department of National Health and Welfare, with certain important programs being administered by: the Department of Veterans Affairs, which provides medical and hospital care to veterans chiefly for disabilities resulting from war service (*see* Part IV of this Chapter); the Department of National Defence, which is responsible for the health of the Armed Forces; the Medical Division of the National Research Council, which administers grants for medical research; and the Dominion Bureau of Statistics, which undertakes the collection and compilation of health statistics. The Department of Agriculture has certain responsibilities in connection with food production.

Under the Department of National Health and Welfare Act of 1944, the Department is responsible for the administration of certain statutes, for research in health matters, for the carrying out of international health obligations undertaken by Canada and, in co-operation with the provinces, for the preservation and improvement of public health.

Under the Quarantine Act, the Department maintains a maritime and aerial navigation quarantine service to exclude infectious diseases. It advises on the administration of sections of the Immigration Act dealing with health and conducts, in Canada and overseas, the medical examination of applicants for immigration; provides care for sick mariners as required under Part V of the Canada Shipping Act; and has certain national and international responsibilities with regard to the pollution of boundary and other waters.

Under the Food and Drugs Act, the Proprietary or Patent Medicine Act and the Opium and Narcotic Drug Act, the Department is responsible for the control of the quality of food and drugs, the registration, preparation and sale of proprietary or patent medicines, and control of the import, export and distribution of narcotic drugs.

The Department passes on the visual eligibility of applicants for blind person allowances and co-operates with the provinces in the provision of remedial services for recipients of these allowances; it is responsible for supervision of health conditions for persons engaged on federal public works, as provided under the Public Works Health Act, and maintains a program for the conservation and promotion of the health of civil servants and other Federal Government employees. Medical advisory services are provided to the Department of Transport in all matters pertaining to the safety, health and comfort of air crew and passengers.

The National Health Program.—The National Health Program, which was announced in May 1948, provides for the payment of federal grants to the provinces. The provision of these grants represented the first stage in the development of a comprehensive health insurance plan for all Canada. The program has three basic purposes: to assist the provinces in surveying their health facilities and services; to assume part of the cost of new hospital construction over a period of years; and to make annual grants to improve and strengthen provincial services in particular health fields.

Since the inception of the program the provinces have steadily increased their utilization of the grants for the development of all types of provincial health services. In the first year (ended Mar. 31, 1949) the provinces spent 25.8 p.c. of the funds

available under all grants except the Health Survey Grant, in 1950-51 expenditures amounted to 53.1 p.c. of the funds available and in 1951-52, 68.9 p.c. was spent. Total expenditures, by type of grant, from May 1948 to Mar. 31, 1952, together with amounts spent for the year ended Mar. 31, 1952, were as follows:—

<i>Type of Grant</i>	<i>May 1948 to Mar. 31, 1952</i>	<i>Expenditures for Year Ended Mar. 31, 1952</i>
	\$'000	\$'000
Crippled children.....	885	350
Professional training.....	1,587	521
Hospital construction.....	26,090	9,166
Venereal disease control.....	1,782	480
Mental health.....	8,737	3,724
Tuberculosis control.....	12,225	4,046
Public health research.....	736	314
General public health.....	9,375	3,605
Cancer control.....	5,737	2,042
Health surveys.....	493	73
TOTALS.....	67,647	24,321

By December 1951, surveys of existing health facilities had been undertaken in all provinces, accommodation for about 35,000 new hospital beds had been approved for construction and approximately 3,300 health workers had received or were undergoing special training. The provision of the federal grants made possible the employment in 1951 of over 4,300 additional health workers across the country. Provincial and municipal health facilities had been aided by the purchase of additional technical equipment and by the extension of both preventive and treatment services and a significant increase in health research had been made possible.

Federal Grants to Non-Governmental Organizations.—Grants are paid to the following non-governmental agencies engaged in health work: the Canadian Red Cross Society, the Canadian Tuberculosis Association, the Victorian Order of Nurses, the St. John Ambulance Association, the Canadian Paraplegic Association, the Canadian Mental Health Association, the Health League of Canada, the Canadian Public Health Association, the Canadian National Institute for the Blind, L'Association Canadienne-Française des Aveugles, L'Institut Nazareth de Montréal and the Montreal Association for the Blind.

Medical Care of Indians and Eskimos.—Health services for Indians and Eskimos are administered by the Department of National Health and Welfare. In 1951, 18 hospitals, 29 nursing stations, and 49 other health centres were operated by the Department which also reimburses, on a per diem basis, the mission and other non-federal hospitals which provide accommodation for Indians and Eskimos. Full-time departmental medical officers serve the larger Indian reserves and part-time officers serve the smaller bands. In addition, in some cases, fees are paid to local physicians for services to Indians.

Consultative and Co-ordinating Services.—The principal co-ordinating agency in the health field in Canada is the Dominion Council of Health, which is composed of the Deputy Minister of National Health who serves as Chairman, the Chief Health Officer of each province and five other persons. The Council advises the Minister of National Health and Welfare on the formulation of policy.

It is largely responsible for the development of a co-operative health program and for the establishment of services by the Federal Government to assist the Provincial Health Departments. Federal-provincial committees of the Council deal with specific aspects of public health.

Certain Divisions of the Department provide technical information and advice and, independently and in co-operation with other departments and agencies, conduct surveys in research and development, the evaluation of programs and procedures, and the establishment of standards. These Divisions include Blindness Control, Child and Maternal Health, Industrial Health, Nutrition, Mental Health, Dental Health, Epidemiology, Hospital Design, the Laboratory of Hygiene, Information Services, and Research.

Section 2.—Provincial and Municipal Health Activities

Health services are administered in different ways in the various provinces, but provincial functions commonly include central planning and administration; the operation of special programs affecting the entire province in such fields as cancer, mental health, tuberculosis and laboratories; consultant service to local authorities; the administration of regulations governing local services; the provision of basic services in areas without municipal organization; and participation in the work of local health units in areas where that type of administration has been developed.

At the local level, responsibility for services varies widely, but municipalities in most provinces provide a range of basic public health services and participate in the costs of hospital care for indigents. In recent years there has been a rapid growth of health services in smaller centres and rural areas through the organization of health units with full-time staff serving counties or other combinations of local government areas. This type of organization, which concentrates on a generalized health program that includes public health nursing, sanitary inspection, communicable disease control, child, maternal and school hygiene and health education, is characteristic of most provinces; financial and administrative responsibility is shared by the provincial and local authorities involved. In spite of a trend towards greater provincial participation in these local units, many remain under local administration as do the highly developed health departments found in the larger cities. Outside of fully organized health-unit areas, municipalities usually appoint part-time medical officers and other personnel while the provincial authorities assume responsibility in the areas lacking municipal organization.

Newfoundland.—Health measures in Newfoundland are centrally administered by a Department of Health. Its main functions include the operation of tuberculosis, communicable disease and venereal disease control programs, nutrition and sanitary inspection services, and the provision on a prepayment basis of medical, hospital and nursing care in certain regions.

The Provincial Tuberculosis Dispensary at St. John's provides free diagnostic and treatment services and acts as the centre for tuberculosis control. The Province subsidizes separate tuberculosis control programs conducted in the northern areas by the International Grenfell Association and the Notre Dame Bay Memorial Hospital, and assists the Newfoundland Tuberculosis Association, which maintains a sea-borne X-ray unit, with surveys in other areas.

Free treatment services and drugs for venereal disease are available throughout the Province through full-time and part-time district medical health officers and public health nurses. A school health program includes educational work and such activities as the distribution of chocolate milk-powder and cod-liver oil.

The Department operates a general hospital, a tuberculosis sanatorium and a hospital for mental and nervous diseases all at St. John's and has recently opened a new provincial sanatorium at Corner Brook. Privately operated hospitals receive per diem payments for departmental cases and, in certain outlying areas, substantial provincial grants.

The "cottage hospital" scheme operates on a prepayment basis and is designed to provide medical and hospital service to the population of outlying areas. Services are provided through 17 small provincially operated hospitals with a total capacity of about 450 beds and equipped in most cases with laboratory and X-ray services. Medical officers and nursing stations in adjoining communities supplement these services. Prepayment of \$10 annually for the head of each family and \$5 annually for each single adult, entitle subscribers to outpatient diagnosis and treatment, to home visits by the doctor and to hospitalization, as required, in the cottage hospitals or, when necessary, in the general hospital at St. John's or outside the Province. Hospitalization for maternity is provided only in complicated cases. In districts not served by doctors, nursing services are provided on payment of an annual fee of \$6 for a family or \$3 for a single person. In general, the cost of medical and hospital care for indigents is borne by the Province, but some social aid recipients pay premiums in cottage hospital areas.

Prince Edward Island.—The Health Branch of the Department of Health and Welfare includes Divisions of Public Health Nursing, Sanitary Engineering, Dental Health, Laboratories, Venereal Disease Control, Cancer Control, Tuberculosis Control, Mental Health and Vital Statistics.

Generalized public health nursing services are conducted by seven district nurses, and sanitary services are provided under the direction of a public health engineer. Free dental treatment is available for needy children at a permanent clinic at Charlottetown and for children in Grade I classes in rural areas through a mobile unit. Laboratory facilities are being decentralized through the establishment in the larger hospitals of branches which remain under the supervision of the Central Laboratory at Charlottetown. Venereal disease clinics are operated at Charlottetown and Summerside.

Free diagnostic services for tuberculosis are provided through five clinics maintained by the Division of Tuberculosis Control, and through a mobile unit which operates under voluntary auspices. At the Provincial Sanatorium at Charlottetown, streptomycin for treatment, and training and employment placement services are available free of charge to all patients. Sanatorium care, though not unqualifiedly free, is heavily subsidized by the Province. Free diagnostic services for cancer are given at a clinic located at Charlottetown. Hospitalization for diagnosis is provided without charge for a period of three days for indigent cancer patients.

Per diem grants are made to general hospitals for all patients and the Province also meets the cost of operating the Falconwood Mental Hospital.

Nova Scotia.—The principal Divisions of the Department of Public Health are Laboratories, Industrial Hygiene, Neuropsychiatry, Physical Fitness, Dental Hygiene, Nutrition, Nursing Service and Sanitary Engineering. In addition, a

provincial program of generalized public health services is administered through seven local health divisions; the City of Halifax operates its own Health Department. Each division is staffed by public health nurses and sanitary inspectors under the supervision of a full-time divisional medical health officer.

Laboratory services, including bacteriological and other examinations and milk and water analyses, have been improved and extended through the work of the Provincial Central Laboratory at Halifax and branch laboratories at Sydney and Kentville. Laboratory tests and field investigations are also conducted by the Industrial Hygiene Division. Streptomycin for tuberculosis and penicillin for venereal disease cases are provided free by the Province.

Three mobile dental clinics provide treatment for children in rural areas; field psychiatrists provide mental guidance and consultant services in two regions and mobile chest X-ray units provide diagnostic services for tuberculosis. At Halifax, the Province operates a psychiatric ward and out-patient psychiatric service, a cancer clinic and a Kenny treatment clinic for poliomyelitis, all at the Victoria General Hospital.

Five provincially owned hospitals are operated under the direction of the Department—Victoria General Hospital, the Nova Scotia Hospital for mental illness, and three tuberculosis sanatoria. All treatment for tuberculosis and treatment for mental illness in the Nova Scotia Hospital is given without charge.

All approved hospitals receive a provincial per diem subsidy for each patient. Old-age and blind pensioners and recipients of mothers' allowances are eligible for limited medical services administered by agreement with Maritime Medical Care Incorporated, including home and office calls but excluding surgery, drugs and medical aids or appliances.

New Brunswick.—The Health Branch of the Department of Health and Social Services includes the following Divisions: Hospital Services and Cancer Diagnostic Clinics, Laboratories, Public Health Nursing, Communicable and Venereal Disease Control, Tuberculosis Control, Maternal and Child Health, Mental Health and Sanitary Engineering.

Medical health officers and some public health nurses are employed by the Province while other local health services are provided through 16 local sub-districts, each corresponding to a county and each having a board of health composed of members appointed by municipal councils. Responsibility for the various local public health functions is divided between the Province and the boards of health. Usually from three to five sub-districts are serviced by a district medical health officer assisted by public health nurses. In some cases, locally administered nursing services are subsidized by the Province.

Pathological, bacteriological, serological and chemical tests are provided by the Provincial Laboratories which also supervise the distribution of vaccines, sera and bacteriologicals, including free immunizing agents, drugs for venereal diseases and insulin for indigent diabetics through the Central Laboratory at Saint John and a branch laboratory at Fredericton. A Mobile Hygiene Laboratory conducts milk and water analyses during the summer months.

Free X-ray and diagnostic services for tuberculosis are provided at eight clinics in larger centres and pneumothorax treatment for convalescent tuberculosis patients is supplied by the Province through payment of physicians' fees. The Health Department supervises and provides free treatment and care in three privately

operated sanatoria in addition to the two owned by the Province. Ten cancer diagnostic clinics provide free diagnosis and free tissue examination service. Acute and immediate post-paralytic cases of poliomyelitis also receive free hospital treatment and grants are made to the Junior Red Cross to enable free treatment for other crippling conditions in children.

A mental health program includes the operation of preventive and diagnostic clinics and provides special psychiatric training for teachers on regular school staffs in the larger centres. Hospitalization for mental illness is available at the Provincial Mental Hospital at Saint John.

General care for all patients is subsidized by provincial per diem grants to approved hospitals.

Quebec.—The Ministry of Health maintains the following Divisions: County Health Units, Sanitary Engineering, Epidemiology, Laboratories, Demography, Hospitals for Mental Diseases, Public Charities, Industrial Hygiene, Nutrition, Venereal Disease, Tuberculosis, Health Education and Medical Service to Settlers.

The Division of County Health Units supplies services to 66 of the Province's 76 counties. The maintenance and operation of these units, each with a full-time medical health officer assisted by public health nurses and sanitary inspectors, is the responsibility of the Ministry of Health, with small local financial contributions. In addition, 16 larger municipalities operate their own health bureaus. Drugs supplied by the Provincial Department to physicians and health units include vaccines, sera, streptomycin for sanatoria patients and penicillin for venereal disease. Laboratory services, including bacteriological and other analyses, are available to physicians and health units at the Central Laboratory, Montreal. Assistance is given to agencies which operate clinics or dispensaries for prevention, case-finding and treatment of tuberculosis. The Department pioneered with the initiation in 1949 of a BCG immunization campaign administered to all new-born infants in hospitals and available to children generally through the health units.

Through the Division of Public Charities, recognized institutions receive provincial grants to cover about one-half of the cost of indigent care; the remainder is paid by the hospital board and the municipality of residence.

The Department operates public mental institutions and supervises tuberculosis sanatoria which are operated chiefly under private and religious auspices and in which the majority of patients receive care without charge.

The Medical Services to Settlers Division provides free nursing and physician services to residents of isolated areas. The staff consists of salaried nurses and part-time physicians paid on a fee-for-service basis. Services given include obstetrical care, examinations, vaccinations and immunizations.

Ontario.—The Department of Health carries on public health services through the following Divisions: Public Health Administration, Public Health Nursing, Maternal and Child Hygiene, Dental Services, Epidemiology, Venereal Disease Control, Tuberculosis Prevention, Industrial Hygiene, Laboratories and Sanitary Engineering.

Local public health services are available to about one-quarter of the population through 26 health units administered locally but with consultative services and financial support supplied by the Department. Elsewhere, local services are organized

through full- or part-time municipal health departments, and by the Province in unorganized territory. Provincial grants are made to local boards of health for school dental services and venereal disease clinics.

Public health legislation affecting water supplies, milk and food and other environmental sanitation is administered by the Department. Maternal and child health care is provided through clinics and, in addition, any expectant mother may receive one free prenatal examination. In certain northern areas a railway dental car operated by the Province provides treatment and two mobile units operated by the Red Cross provide dental examinations. Three other mobile dental units operate locally under the supervision of health boards or school authorities.

The Central Laboratory and 15 branch laboratories (nine provincially operated and six subsidized) carry out bacteriological and other examinations for clinics, hospitals and private physicians. Biologicals and other materials for the prevention and control of communicable diseases, insulin for indigent diabetics and streptomycin for tuberculosis patients, are distributed free of charge by the Department.

Chest clinics, held in approximately 170 centres, are financed mainly through funds of local tuberculosis associations and the Department. The Province pays the major portion of the cost of maintaining patients in sanatoria.

Cancer control in Ontario is administered by the Ontario Cancer Treatment and Research Foundation and provincial grants are given this organization to subsidize diagnosis and treatment in eight clinics.

Care is provided for the mentally ill in 17 institutions operated by the Province. Special units are concerned with the care of epileptics, the tubercular and the criminally insane. In addition, the Province operates four travelling mental health clinics. A provincial hospital for alcoholics and a treatment clinic have recently been opened.

Old-age pensioners, blind pensioners, mothers' allowance recipients and those receiving unemployment relief are eligible for free medical care including home and office calls, minor surgery and certain basic drugs. The program is operated by the Ontario Medical Association on per capita allowances paid by the Province.

Per diem grants, which vary according to hospital size, are paid to all public hospitals by both provincial and municipal authorities.

Manitoba.—Health and welfare services are administered by the Department of Health and Public Welfare consisting of four main Divisions: General Administration, Health Services, Psychiatric Services and Welfare Services.

Local preventive health services including local health units and diagnostic units are maintained and operated by the Health Extension Section of the Health Services Division, which recovers part of the costs from the municipalities served. Public health services, currently covering approximately one-third of the provincial population, are provided through 14 full-time units, each comprising a variable number of municipalities (approximately another third of the population is covered by Winnipeg's health service facilities). In two health unit areas (Dauphin and Selkirk) prepaid diagnostic X-ray and laboratory facilities have been organized. Outside the health unit areas the Provincial Nursing Service provides public health services.

The principle of district organization is also followed in the legislative provisions for hospital and medical care. Of the 34 hospital districts now organized, all but two contain at least one general hospital often augmented by one or more medical nursing units. Medical care has also been organized through municipal prepayment plans, provincially subsidized.

Provincial mental institutions are operated at Winnipeg, Selkirk and Brandon and a school for the mentally defective at Portage la Prairie. Community mental health services are also conducted, including out-patient services at mental hospitals and child guidance clinics.

Provincially operated clinics provide preventive and treatment services for venereal disease. Tuberculosis control is administered by the Sanatorium Board of Manitoba and services include diagnostic and travelling clinics, chest X-ray surveys and a rehabilitation program. The Province assists in the program by maintaining a Central Registry of Tuberculosis and a follow-up service for discharged patients by public health nurses. The cost of hospitalization and treatment in sanatoria is met by provincial grants and by payments from municipalities determined by the patient-days accrued by residents. The Manitoba Cancer Relief and Research Institute, which is subsidized by the Province, administers all cancer activities. A free cancer biopsy service is provided throughout the Province while radium and X-ray treatments are available without charge in rural areas and at a nominal charge in urban areas.

Laboratory services are provided through provincial laboratories at Winnipeg, Brandon and Portage la Prairie. In addition, the Department distributes drugs to doctors, hospitals and government agencies including penicillin and other drugs for venereal disease, insulin and other biologicals for indigents and antibiotics for tubercular patients.

The Provincial Government contributes a per diem grant to hospitals and sanatoria for all public-ward patients and lump sum grants to teaching hospitals.

Saskatchewan.—The Saskatchewan Department of Public Health was reorganized in 1950 and now includes four main Branches: Preventive Services, Regional Health Services, Medical and Hospital Services and Psychiatric Services. The Health Services Planning Commission functions as an advisory and planning agency on major policy and administrative matters in the Department.

The Preventive Services Branch includes divisions of communicable disease control, child health, laboratories, venereal disease control, nursing services, dental health, nutrition and sanitation. The Communicable Diseases Division distributes free vaccines and sera to doctors, health departments and hospitals, and supervises immunization programs and poliomyelitis clinics at Saskatoon and Regina. The Child Health Division provides services for crippled children, including mobile consultation units and a rehabilitation centre for the cerebral palsied. Public health laboratory services and the free distribution of certain drugs and biologicals are carried out by the Provincial Laboratories. Field services for venereal disease, tuberculosis, mental health and other public health programs are provided by the Nursing Services Division.

The Regional Health Services Branch is responsible for the organization of health regions which are administered by locally elected health boards although staff is appointed and financial assistance is provided by the Province. Seven of the 12 proposed regions are currently in operation. In addition to the general

public health services provided in all regions, the Swift Current Health Region has a medical-care plan including general practitioner, specialist, diagnostic and limited dental services. The plan is financed by personal and property taxes with some Provincial Government contributions. In addition, many districts have municipal doctor programs with medical services provided under a contract between the municipal authority and the medical practitioner.

Responsibility for the administration of the Saskatchewan Hospital Services Plan rests with the Medical and Hospital Services Branch of the Department. All residents are eligible for hospital care under the compulsory plan financed by an annual tax of \$10 for all persons 18 years of age or over and \$5 for persons under 18 years of age, with \$30 as a maximum family tax; additional funds are provided by the Province as needed. Payment of the tax for social assistance recipients is by the government agency responsible for their hospital care and treatment. In addition to free hospital care, medical, dental and optical services and some drugs are provided to old-age and blind pensioners and their dependants, to beneficiaries of mothers' allowances and to social-aid groups including provincial wards.

The Psychiatric Services Branch supervises psychiatric hospitals and administers community psychiatric services including clinics. The Province provides free care and treatment for all mentally ill and mentally defective persons requiring hospitalization. The Province's tuberculosis control program is operated by the Saskatchewan Anti-tuberculosis League. Stationary and mobile clinics give diagnostic service and pneumothorax treatments while provincial per diem grants and municipal levies pay the cost of hospital care and treatment. The Saskatchewan Cancer Commission co-ordinates all cancer control measures and operates publicly financed consultative, diagnostic and treatment clinics at Saskatoon and Regina.

Alberta.—The Department of Public Health includes Divisions of Communicable Disease, Public Health Education, Hospital and Medical Services, Laboratory, Public Health Nursing, Social Hygiene, Sanitary Engineering, Cancer Services, Mental Health, Tuberculosis Control, Entomology, Nutrition Services and Vital Statistics.

For the provision of local health services, the Province is divided into health unit districts. The units are administered, with Departmental supervision and financial aid, by local boards of health composed of members appointed by local governments. One-half of the 18 units currently organized are directed by full-time medical health officers and one-half by public health nurses. Outside the health unit areas, the Department operates a district nursing service in outlying communities, and is generally responsible for health services in unorganized territory. The larger cities have their own full-time health departments.

Free services regularly provided through Departmental clinics include diagnosis and treatment for venereal disease; medical examination for cancer; mental guidance and psychiatric examinations; X-ray examinations and tests for tuberculosis at stationary and travelling clinics and mobile X-ray units. Provincial laboratory services at Edmonton and Calgary are available to all doctors and approved hospitals and sera and biologicals are distributed for preventive work.

On the recommendation of provincial cancer clinics, surgical, X-ray and radium treatment and hospitalization for a period of up to two weeks for diagnostic purposes are provided by the Department. There are four provincial institutions for the

mentally ill and one for mental defectives. Sanatoria care and treatment are provided without charge for all resident tubercular patients and out-patient pneumothorax services are also available.

The Province provides full medical (including specialist), optical and extensive dental services to old-age and blind pensioners, recipients of mothers' allowances and their dependants. The Department also bears the cost of hospital and medical care for rheumatoid arthritic patients under 21 years of age and provides all residents suffering from the after-effects of poliomyelitis with medical, surgical and hospital care and rehabilitation services. All maternity patients satisfying resident requirements may be hospitalized for a twelve-day period at provincial expense.

Over two-thirds of the population of the Province is provided with standard hospitalization through a district municipal hospital program. The plan is operated at the local level under provincial supervision. Costs are distributed among the patient, the municipality and the Provincial Government. The patient is charged \$1 per day and the municipality pays the remainder of the basic ward rate, raised by a mill-rate tax on real property. The Provincial Government then reimburses the municipality for one-half of this amount.

British Columbia.—The Department of Health and Welfare is divided into two branches and, in addition, there is a Hospital Insurance Commission directly responsible to the Minister of Health and Welfare.

The Health Branch consists of three bureaus, two located at Victoria and one at Vancouver. The Bureau of Local Health Services at Victoria includes Divisions of Nutrition, Health Units, Public Health Nursing, Environmental Sanitation and Preventive Dentistry. The Central Administration Bureau, also at Victoria, includes Vital Statistics and Public Health Education. The Divisions of Tuberculosis Control, Venereal Disease Control and Laboratories form the Bureau of Special Preventive and Treatment Service located at Vancouver.

The provision of local public health services is on a health-unit basis. These units are administered and staffed by the Province, but are jointly financed by the Province and the local municipalities concerned. Thirteen of the 18 units planned are in operation. In isolated areas, Public Health Nursing Districts, staffed by public health nurses and sanitary inspectors, are forerunners of fully organized health units. Vancouver and Victoria have their own city health departments; other centres have part-time medical health officers.

Special provincial public health services include tuberculosis clinics which provide free diagnostic and consultative service, venereal disease clinics which offer free diagnosis and treatment, and maternal and child health clinics operated by public health nurses which provide immunization and pre- and post-natal advice. Branch laboratories are maintained in various parts of the Province through which immunizing agents are distributed free of charge to doctors, health officers and public health nurses. Ten communities have pre-school and Grade I dental programs with service provided by private resident dentists in which costs are met by provincial grants (about 50 p.c.) and by local contributions and flat minimum charges to parents of children receiving treatment. In connection with mental health services the Province operates stationary and travelling child-guidance clinics. A clinic of psychological medicine has been established at the provincial hospital at Essondale; it functions as an investigatory and active treatment centre for short-term patients.

Provisions for the treatment and control of cancer, which include a treatment centre and a nursing home at Vancouver, consultative and diagnostic clinics located throughout the Province and a free province-wide biopsy service, are the responsibility of the British Columbia Cancer Foundation, an official agent of the Provincial Government. The Province pays the operating costs of the Foundation. The Province also helps finance voluntary programs concerned with the physical rehabilitation of paraplegics and cerebral palsied children, the care and treatment of arthritics, and the maintenance of blood transfusion services.

Institutions for the care of tubercular and mental patients and infirmaries for persons with incapacitating disabilities are operated by the Province. Indigents are hospitalized in these institutions at public expense while other patients pay in accordance with their ability. Rehabilitation and visiting homemaker services are available to tubercular patients.

Standard hospital care is available to all residents through a compulsory prepayment plan. The plan is financed by annual premiums, amounting in 1952 to \$30 for a person without dependants and \$42 for a person with one or more dependants, supplemented by provincial and municipal contributions and additional patient payments up to a family maximum of \$35 per year. Full medical, surgical and obstetrical, dental and optical care, and some drugs are provided old-age and blind pensioners, mothers' allowance recipients and their dependants, who are also covered by the hospital plan, their premiums being paid by the Province. A similar program, with costs of some services shared by the municipalities, is provided for social-assistance groups including provincial wards.

Section 3.—Institutional Statistics*

This Section provides a brief outline of hospital conditions in Canada. The figures included in the tables are for 1950 (except for mental institutions) while those published in the 1951 Year Book are for 1948. Figures for the intervening year may be obtained from the *Annual Report of Hospitals 1949* and the *Annual Report of Tuberculosis Institutions 1949*, available from the Dominion Statistician, Ottawa.

For statistical purposes hospitals are divided into three main groups on the basis of their admission policies—public hospitals, federal hospitals and private hospitals. Public hospitals are subdivided into acute disease hospitals, chronic disease hospitals, mental institutions and tuberculosis sanatoria. Hospitals with a relatively rapid turnover of patients, i.e., acute disease hospitals, are further subdivided according to the type of medical care provided into general and special hospitals. The latter group includes contagious diseases, women's, children's, convalescent and unclassified hospitals.

The number of hospitals in Canada which reported for 1950 is shown in Table 1, classified according to type and province. The significance of facilities in Canadian hospitals is shown in Table 2 which indicates the distribution of bed capacity in 1950, by provinces, according to type of hospital. A comparison of data in both tables will reveal the relative size of hospitals of various types.

* Except where otherwise indicated, this Section has been revised in the Institutions Section of the Health and Welfare Division, Dominion Bureau of Statistics.

Two important factors should be taken into account for an effective interpretation of the information shown in Table 2. Firstly, it should be noted that bed capacity expresses the number of beds for which the hospital was designed. It is calculated on the basis of a standard floor area per bed and varies in the different provinces. The use of this figure may eliminate over-crowding as a disturbing factor in certain kinds of statistical studies. Secondly, the bed complement only, i.e., the number of beds actually set up, is shown in these tables for tuberculosis sanatoria. For mental institutions and other hospitals bed capacity is shown; the bed complement for these institutions is available in specialized publications and may be compared with bed-capacity figures to obtain a measure of over-crowding in such hospitals.

The fact that many institutions also provide care of a kind different from the classification in which they have been placed should be taken into account. A major distortion that may occur in the interpretation of these figures is illustrated in Tables 1 and 10. Table 1 gives the number of units in public hospitals that are reserved for tubercular patients; Table 10 shows the bed complement of these units.

1.—Hospitals Reporting, classified by Types and by Provinces, 1950

Type of Institution	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Population (1950 estimate, 000's omitted)....	351	96	638	512	3,969	4,471	768	833	913	1,137	24	13,712
Public Hospitals—												
Acute Diseases— ¹												
General.....	—	6	41	30	79	153	55	145	94	73	8	684
Special.....	—	—	4	1	22	16	2	3	5	3	—	57
Totals, Acute Diseases	—	6	45	31	101	169	58	148	99	76	8	741
Chronic diseases ²	—	—	—	2	6	10	1	—	—	3 ³	—	22
Mental institutions ⁴	1	1	18	1	10	18	4	4	5	4	—	66
Tuberculosis sanatoria	1	1	5	5	19	16	7	3	5	11	1	74
Units in other hospitals	3	—	8	1	11	3	2	2	—	6	6	41
Totals, Public Hospitals⁵	2	8	68	39	136	213	70	155	109	94	9	903
Federal Hospitals—												
Department of Veterans Affairs.....	—	—	1	2	5	9	2	2	3	4	—	28
Department of National Health and Welfare.....	—	—	3	2	1	4	5	1	5	5	—	26
Department of National Defence.....	1	1	4	—	2	9	4	—	2	4	1	28
Totals, Federal Hospitals.....	1	1	8	4	8	22	11	3	10	13	1	82
Private Hospitals.....	—	—	7	4	85	46	5	16	12	48	2	225
Totals, All Hospitals..	3	9	83	47	229	281	86	174	131	155	12	1,210

¹ Excluding incurable (chronic diseases), mental and tuberculosis institutions in general hospitals.

³ Three units of Provincial Infirmary.

² Excluding units

⁴ Includes three private institutions—one in Ontario, one in Quebec and one in British Columbia (not otherwise listed in this table).

⁵ Excluding tuberculosis units.

2.—Numbers of Beds and Bassinets in Reporting Hospitals, classified by Types and by Provinces, 1950

NOTE.—Figures here given indicate bed capacity, except for tuberculosis sanatoria, for which beds actually set up are given (see text on p. 241).

Type of Institution	N'tl'd.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Population (1950 estimate, 000's omitted)....	351	96	638	512	3,969	4,471	768	833	913	1,137	24	13,712
Public Hospitals—												
Acute Diseases—												
General—												
Beds.....	—	571	2,919	1,838	13,601	16,042	3,450	5,378	5,003	5,897	359	55,058
Bassinets.....	—	131	535	312	1,832	3,040	796	845	903	937	24	9,355
Special—												
Beds.....	—	—	252	16	3,850	1,368	490	12	145	224	—	6,357
Bassinets.....	—	—	78	15	428	183	—	12	36	55	—	807
Totals, Acute Diseases—												
Beds.....	—	571	3,171	1,854	17,451	17,410	3,940	5,390	5,148	6,121	359	61,415
Bassinets.....	—	131	613	327	2,260	3,223	796	857	939	992	24	10,162
Chronic Diseases— ¹												
Beds.....	—	—	—	122	1,258	1,947	434	—	—	353	—	4,114
Mental Institutions— ²												
Beds.....	530	250	2,346	1,100	14,303	13,640	2,477	3,443	2,558	3,061	—	43,708
Tuberculosis Sanatoria—												
Beds.....	365	150	862	826	4,546	4,092	801	803	492	802	90	13,829
Totals, Public Hospitals—												
Beds.....	895	971	6,379	3,902	37,558	37,089	7,652	9,636	8,198	10,337	449	123,066
Bassinets.....	—	131	613	327	2,260	3,223	796	857	939	992	24	10,162
Federal Hospitals—												
Department of Veterans Affairs—												
Beds.....	—	—	550	450	2,275	3,495	1,000	175	545	1,665	—	10,155
Department of National Health and Welfare— ³												
Beds.....	—	—	91	15	218	256	527	65	609	547	—	2,328
Bassinets.....	—	—	—	2	—	29	12	6	17	5	—	71
Department of National Defence—												
Beds.....	15	20	295	—	75	410	115	—	60	155	35	1,180
Totals, Federal Hospitals—												
Beds.....	15	20	936	465	2,568	4,161	1,642	240	1,214	2,367	35	13,663
Bassinets.....	—	—	—	2	—	29	12	6	17	5	—	71

For footnotes, see end of table.

2.—Numbers of Beds and Bassinets in Reporting Hospitals, classified by Types and by Provinces, 1950—concluded

Type of Institution	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Private Hospitals—												
Beds.....	—	—	35	96	1,384	925	87	71	136	1,201	20	3,955
Bassinets.....	—	—	20	31	361	178	7	8	17	15	1	638
Totals, All Hospitals—												
Beds.....	910	991	7,350	4,463	41,510	42,175	9,381	9,947	9,548	13,905	504	140,684
Bassinets.....	—	131	633	360	2,621	3,430	815	871	973	1,012	25	10,871

¹ Excluding units in general hospitals. ² Includes data for three private institutions—one in Ontario, one in Quebec and one in British Columbia (not otherwise shown in this table). ³ One hospital in each of the Provinces of Ontario, Manitoba and Saskatchewan did not report.

3.—Summary Statistics of Reporting Public Hospitals for Acute Diseases and Private Hospitals, 1946-50

Item	1946	1947	1948	1949	1950
	No.	No.	No.	No.	No.
Public Hospitals for Acute Diseases—					
Units reporting.....	595	653	678	719	741
Bed capacities ¹	61,324	62,822 ¹	64,936	67,419	71,577
Patients under care ²	1,504,893	1,633,069	1,707,946 ¹	1,820,888	1,791,825
Total collective days' stay ²	16,818,176	17,250,382 ²	17,793,754 ³	18,490,400 ³	17,604,913 ³
Private Hospitals—					
Units reporting.....	235	212	210	194	225
Bed capacities ¹	4,074	3,906	3,997	3,722	4,593
Patients under care ²	58,216	61,434	61,530	63,052	70,577
Total collective days' stay ²	882,356	934,196	923,779	877,054	1,029,935

¹ Includes beds, cribs and bassinets. and incurable units.

² Includes newborn.

³ Exclusive of tuberculosis

Subsection 1.—Statistics of Public Hospitals for Acute Diseases

Movement of patients, personnel and hospital facilities for in-patients in both general and special public hospitals during 1950 are summarized in Tables 4 and 6. Comparative workload, staff per patient, etc., may be obtained from these data. The last item in Table 5, cost per patient day, where revenues and expenditures are divided into main sources and objects, respectively, provides a significant connection between patient and financial statistics.

4.—Movement of Patients, Personnel, and Hospital Facilities of

Item	Yukon and N.W.T.	Prince Edward Island	Nova Scotia		New Brunswick		Quebec	
			General	Special	General	Special	General	Special
	No.	No.	No.	No.	No.	No.	No.	No.
1 Hospitals reporting.....	8	6	41	4	30	1	79	22
2 Approved schools of nursing.....	—	3	12	1	14	—	34	2
Movement of Patients—								
3 Admissions ¹	2,246	13,227	75,764	7,927	76,880	878	345,756	34,834
4 Live births.....	192	2,225	11,754	2,105	11,089	421	44,494	7,546
5 Discharges ¹	2,171	12,961	73,857	7,808	75,151	874	335,897	33,872
6 Deaths ¹	64	313	1,909	118	1,637	5	9,147	843
7 Under treatment ¹	2,508	13,628	77,867	8,133	78,357	892	353,251	37,910
8 Total collective days' stay ¹	95,355	131,584	734,386	72,005	678,008	7,179	3,827,146	1,181,106
Personnel—								
9 Salaried doctors, full-time.....	1	2	9	2	8	—	124	51
10 Interns.....	—	1	73	8	15	—	561	84
11 Graduate nurses.....	26	64	565	61	429	3	2,601	494
12 Student nurses ²	—	163	757	74	811	—	3,130	89
13 Other.....	112	230	1,626	222	1,270	9	9,698	2,084
Totals, Personnel.....	139	460	3,030	367	2,533	12	16,114	2,802
Hospital Facilities—								
14 X-ray.....	4	6	31	2	26	—	77	12
15 Clinical laboratories.....	4	4	29	2	22	—	65	12
16 Physio-therapy.....	1	3	10	1	14	—	56	8

¹ Includes newborn.² Includes probationers.

5.—Finances of Reporting Public Hospitals

Item	Yukon and N.W.T.	Prince Edward Island	Nova Scotia		New Brunswick		Quebec	
			General	Special	General	Special	General	Special
	No.	No.	No.	No.	No.	No.	No.	No.
1 Hospitals reporting.....	—	6	38	4	30	1	70	19
	\$	\$	\$	\$	\$	\$	\$	\$
Receipts—								
2 Net earnings from patients.....	...	629,058	3,230,388	282,402	4,291,710	16,277	24,673,832	2,454,140
3 Provincial and municipal grants.....	...	91,449	227,946	92,684	610,122	1,936	3,533,394	2,386,506
4 Other sources.....	...	55,653	258,107	59,028	216,769	10,345	5,730,175	723,429
Totals, Receipts.....	...	776,160	3,716,441	434,114	5,118,601	28,558	33,937,101	5,564,075
Expenditures—								
5 Salaries and wages.....	...	255,303	1,509,105	208,198	2,101,980	9,168	15,349,407	2,920,375
6 Supplies.....	...	360,007	1,636,188	207,662	2,132,514	12,566	11,865,952	2,157,361
7 All other expenditures.....	...	165,304	630,533	68,003	1,034,390	5,081	6,369,384	1,093,354
Totals, Expenditures..	...	780,614	3,775,826	483,863	5,268,884	26,815	33,584,743	6,171,090
8 Cost per patient day.....	...	5.85	6.19	6.65	7.44	3.74	8.20	5.49

Reporting Public Hospitals for Acute Diseases, by Provinces, 1950

Ontario		Manitoba		Saskatchewan		Alberta		British Columbia	
General	Special	General	Special	General	Special	General	Special	General	Special
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
153	16	55	3	145	3	94	5	73	3
53	2	9	1	10	—	10	—	6	—
566,288	37,848	114,214	4,245	186,291	425	180,110	1,560	191,170	7,905
87,060	8,263	16,850	—	19,857	198	23,561	433	23,715	2,491
548,965	37,210	111,366	4,147	182,372	426	176,778	1,548	186,049	7,802
16,581	597	2,720	62	3,668	2	3,341	3	4,954	42
579,448	38,686	116,464	4,395	190,859	431	183,769	1,660	192,674	8,090
5,702,568	388,960	997,847	55,799	1,970,872	4,551	1,558,001	40,881	1,909,146	87,589
92	9	32	6	6	—	19	—	36	—
516	10	100	8	43	—	75	—	122	—
5,127	442	623	53	1,208	5	1,085	27	2,030	80
4,777	218	894	34	1,223	—	1,237	—	1,236	—
13,397	1,441	2,226	332	3,660	11	3,313	50	4,491	245
23,909	2,120	3,875	433	6,140	16	5,729	77	7,915	327
148	5	46	2	128	—	92	1	72	2
85	6	32	2	103	1	49	1	50	3
57	10	11	2	43	—	23	1	29	2

for Acute Diseases, by Provinces, 1950

Ontario		Manitoba		Saskatchewan		Alberta		British Columbia	
General	Special	General	Special	General	Special	General	Special	General	Special
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
149	10	53	2	141	3	92	4	73	3
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
38,827,110	2,235,643	5,719,339	230,641	12,621,409	16,177	9,472,786	34,778	20,010,120	589,779
9,959,303	747,137	512,085	37,609	818,236	12,200	3,304,033	57,580	241,417	40,000
11,997,477	1,241,715	345,842	138,575	1,821,608	19,414	747,547	95,303	4,225,426	286,739
60,783,890	4,224,495	6,577,266	406,835	15,261,253	47,791	13,524,366	187,661	24,476,963	916,518
27,798,909	1,967,884	3,341,779	229,776	7,179,397	14,702	6,329,963	108,351	12,760,462	561,283
18,434,900	1,187,753	2,600,630	137,539	4,741,471	17,937	4,598,783	57,533	5,856,146	174,529
5,934,921	439,663	911,731	43,872	1,980,589	14,078	2,300,413	21,595	2,756,521	119,342
52,168,730	3,595,300	6,854,140	411,187	13,901,457	46,717	13,227,159	187,479	21,373,129	855,154
8.41	8.81	7.27	7.70	6.83	10.26	7.70	5.74	10.24	9.52

Organized Services.—Organized services analysed in Table 6 are hospital departments or services in charge of qualified specialists. Many of the smaller public general hospitals have available certain facilities for specialized services but, since these are not organized, they are not included in the figures in the table.

6.—Organized Services and Medical Staffs in Reporting Public Hospitals for Acute Diseases, by Provinces, 1950

(Exclusive of Newfoundland)

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Service—										
General medicine.....	3	12	9	55	64	12	16	17	26	214
Pædiatrics.....	2	3	6	48	44	8	11	17	17	156
Cardiology.....	1	2	4	35	31	10	2	5	13	103
Dermatology.....	—	2	1	28	16	4	3	2	5	61
Neuro-psychiatry.....	—	1	—	16	10	3	1	1	4	36
Tuberculosis.....	—	6	—	11	—	1	2	2	2	24
Venerology.....	—	2	—	25	13	4	2	1	2	49
Contagious diseases.....	—	2	3	6	10	4	6	2	5	38
General surgery.....	3	12	9	55	62	12	16	17	26	212
Orthopædics.....	—	3	4	40	35	8	4	8	7	109
Neurology.....	—	1	—	13	13	3	1	2	4	37
Dentistry.....	—	2	1	32	—	5	1	1	4	46
Obstetrics.....	3	11	8	54	65	10	16	18	25	210
Gynæcology.....	2	5	3	44	49	9	8	8	12	140
Ophthalmology.....	1	4	5	46	33	6	6	3	7	111
Otolaryngology.....	1	3	5	50	33	7	5	4	7	115
Urology.....	1	7	4	34	34	6	8	7	12	113
Pathology.....	2	3	5	41	20	10	6	7	12	106
Bacteriology.....	3	4	6	54	44	12	6	7	12	148
Radiology (X-ray).....	3	17	8	59	61	13	12	16	24	213
Deep X-ray therapy.....	3	2	4	26	22	1	4	4	6	72
Radium therapy.....	2	1	1	16	16	1	2	3	3	45
Clinical laboratory.....	3	8	8	50	50	13	8	16	23	179
Physio-therapy.....	2	4	4	47	37	7	8	7	15	131
Medical Staff—										
Organized medical staffs.....	3	25	17	67	100	13	20	22	36	303
Staff doctors.....	59	827	472	3,946	4,954	892	557	1,069	1,151	13,927

Organized Out-Patient Departments.—Out-patient departments are operated by hospitals for the treatment of patients who do not occupy in-patient beds. The extension of out-patient services to patients of modest means has far-reaching and beneficial effects. It may eliminate unnecessary admissions to in-patient wards of hospitals or may serve to secure necessary hospitalization.

7.—Organized Out-Patient Departments in Public Hospitals for Acute Diseases, by Provinces, 1950

Province	Out-Patient Departments	Treatments	Province	Out-Patient Departments	Treatments
	No.	No.		No.	No.
Newfoundland.....	..	..	Ontario.....	18	577,472
Prince Edward Island.....	..	..	Manitoba.....	4	99,248
Nova Scotia.....	..	..	Saskatchewan.....	..	..
New Brunswick.....	2	34,233	Alberta.....	1	3,286
Quebec.....	30	994,538	British Columbia.....	2	70,411

Subsection 2.—Statistics of Mental Institutions

The 64 mental institutions operating in Canada during 1949 include two Federal Government and three private institutions. The three public institutions in British Columbia are reported as one hospital. Table 8 contains information from all these institutions. Total patients shown in the table include 4,619 non-residents, either on parole or boarding out, distributed by provinces as follows: Nova Scotia, 134; New Brunswick, 190; Quebec, 1,370; Ontario, 2,089; Manitoba, 193; Saskatchewan, 330; Alberta, 82; and British Columbia, 231.

Financial data for 1949 shown in Table 9 cover only public mental institutions and include neither private institutions (one in Quebec, one in Ontario and one in British Columbia) nor Federal Government institutions (one in Quebec and one in Ontario).

8.—Movement of Patients and Personnel in Mental Institutions, by Provinces, 1949

Item	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Institutions reporting.....	1	1	18	1	9	17	4	4	5	4	64
Movement of Patients—											
Admissions (transfers not included).....	174	104	666	492	3,410	5,339	793	1,269	857	2,372	15,476
Under hospital care.....	826	413	3,000	1,824	18,373	22,265	3,967	5,730	3,985	6,778	67,161
Separations (transfers not included).....	150	121	679	439	3,173	4,875	783	1,254	816	2,138	14,428
Total Patients, Dec. 31, 1949.....	676	292	2,447	1,587	16,686	19,349	3,358	4,777	3,251	4,859	57,282
Personnel—											
Medical staff, full-time (interns included).....	3	—	4	6	57	88	18	17	12	22	227
Medical staff, part-time (interns included).....	—	1	17	3	53	36	5	1	5	—	121
Registered nurses.....	18	1	31	19	238	451	25	9	33	23	848
Other nurses.....	130	40	190	135	1,400	2,568	464	807	424	939	7,097
Other personnel.....	126	37	251	114	1,264	1,567	297	420	384	472	4,942
Totals, Personnel.....	277	79	493	277	3,002	4,730	809	1,254	858	1,456	13,235

9.—Financial Statistics for Mental Institutions, by Provinces, 1949

(Exclusive of Newfoundland)

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	\$	\$	\$	\$	\$
Receipts—					
Government and municipal payments..	218,486	996,239	890,152	5,478,281	11,186,020
Fees from paying patients.....	38,123	108,523	61,793	854,908	1,423,226
Received from other sources.....	—	112,552	5,525	1,154,421	422,554
Totals, Receipts.....	256,609	1,217,314	957,470	7,487,610	13,031,800
Expenditures—					
Salaries (net).....	88,833	495,619	453,533	2,894,657	7,547,736
Provisions.....	82,404	404,039	227,194	1,915,242	2,108,364
Other expenditures for maintenance....	85,372	425,547	276,743	2,015,511	2,922,193
Totals, Maintenance Expenditures....	256,609	1,325,205	957,470	6,825,410	12,578,293
New buildings and improvements.....	—	10,823	31,903	697,330	453,507
Other purposes.....	—	13,063	—	474,831	—
Totals, Non-maintenance Expenditures.....	—	23,886	31,903	1,172,161	453,507
Totals, Expenditures.....	256,609	1,349,091	989,373	7,997,571	13,031,800

9.—Financial Statistics for Mental Institutions, by Provinces, 1949—concluded

Item	Manitoba	Saskatchewan	Alberta	British Columbia	Total
	\$	\$	\$	\$	\$
Receipts—					
Government and municipal payments..	2,053,791	4,181,871	3,091,769	4,431,863	32,528,472
Fees from paying patients.....	222,043	195,664	364,611	345,908	3,614,799
Received from other sources.....	86,961	298,155	48,024	—	2,128,192
Totals, Receipts.....	2,362,795	4,675,690	3,504,404	4,777,771	33,271,463
Expenditures—					
Salaries (net).....	1,139,562	2,555,970	1,509,915	2,471,153	19,156,978
Provisions.....	559,589	808,314	535,347	983,054	7,623,547
Other expenditures for maintenance....	505,318	570,781	477,677	1,323,564	8,602,706
Totals, Maintenance Expenditures....	2,204,469	3,935,065	2,522,939	4,777,771	35,383,231
New buildings and improvements.....	98,378	246,806	895,088	—	2,433,835
Other purposes.....	—	—	87,777	—	575,671
Totals, Non-maintenance Expenditures.....	98,378	246,806	982,865	—	3,009,506
Totals, Expenditures.....	2,302,847	4,181,871	3,505,804	4,777,771	33,392,737

Subsection 3.—Statistics of Tuberculosis Institutions

Table 10 shows that 22.3 p.c. of total bed complement provided for tubercular patients in 1950, i.e., 3,961 of the 17,790 beds, were located in Federal Government sanatoria, tuberculosis units in Federal Government hospitals, and tuberculosis units in public general hospitals. Movement of patient statistics in Table 11 include data from these sources. As a result, any comparison of movement of patients and personnel statistics will be misleading since the latter involve only personnel of public sanatoria.

10.—Bed Complements of Tuberculosis Sanatoria and Tuberculosis Units in Other Hospitals, by Provinces, 1950

Item	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	N.W.T.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Public sanatoria.....	365	150	862	826	1,546	1,092	801	803	492	802	90	13,829
Federal Government sanatoria.....	—	—	—	—	200	168	474	—	448	498	—	1,788
Units in public hospitals.....	123	—	201	—	846	—	—	—	—	10	149	1,329
Units in Federal Government hospitals.....	—	—	158	80	171	216	12	80	—	123	—	844
Totals, Bed Complement	488	150	1,221	906	3,766	1,476	1,287	883	940	1,433	239	17,790

11.—Movement of Patients, Personnel and Hospital Facilities in Tuberculosis Sanatoria and Units, by Provinces, 1950

Item	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	No.	No.	No.	No.	No.	No.
Movement of Patients—						
Admissions.....	501	165	1,885	1,542	6,404	4,225
Discharges ¹	463	166	1,863	1,583	5,635	3,948
Deaths ²	37	17	82	95	544	386
Under care.....	925	311	2,392	2,388	10,434	8,084
Total collective days' stay	163,509	54,022	322,532	307,786	1,682,183	1,522,363
Personnel—³						
Salaried doctors.....	8	4	15	23	154	96
Graduate nurses.....	24	18	75	82	247	372
Other personnel.....	242	85	420	439	1,582	1,958
Totals, Personnel.....	274	107	510	544	1,983	2,426
Hospital Facilities—³						
X-ray.....	1	1	3	5	15	14
Clinical laboratories.....	1	1	3	5	15	14
Physio-therapy.....	—	1	1	3	10	7
	Manitoba	Saskatchewan	Alberta	British Columbia	Northwest Territories	Total
	No.	No.	No.	No.	No.	No.
Movement of Patients—						
Admissions.....	1,793	959	901	1,450	416	20,241
Discharges ¹	1,800	919	848	1,404	382	19,011
Deaths ²	130	72	104	147	37	1,651
Under care.....	2,856	1,719	1,708	2,773	602	34,192
Total collective days' stay	418,652	299,827	309,532	497,847	71,673	5,649,926
Personnel—³						
Salaried doctors.....	18	18	15	32	..	383
Graduate nurses.....	54	82	28	129	..	1,111
Other personnel.....	512	475	166	540	..	6,419
Totals, Personnel.....	584	575	209	701	..	7,913
Hospital Facilities—³						
X-ray.....	4	3	4	6	..	56
Clinical laboratories.....	4	3	4	6	..	56
Physio-therapy.....	4	3	4	6	..	39

¹ Includes all deaths. ² Deaths as reported from 106 of a total of 115 institutions. ³ Sanatoria only (exclusive of Federal Government sanatoria).

12.—Financial Statistics for Tuberculosis Sanatoria, by Provinces, 1950

(Exclusive of Federal Government Sanatoria)

Item	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	No.	No.	No.	No.	No.	No.
Sanatoria reporting.....	1	1	3	5	15	14
Revenues—	\$	\$	\$	\$	\$	\$
Government and municipal grants and payments.....	793,300	215,702	1,351,923	1,495,466	3,837,269	6,115,546
Pay patients.....	133	41,020	—	4,970	299,092	210,429
Other sources.....	—	387	3,468	55,303	422,689	896,960
Totals, Revenues.....	793,433	257,109	1,355,391	1,555,739	4,559,050	7,222,935
Expenditures—						
Salaries and wages.....	258,502	112,415	620,359	747,743	2,017,570	3,711,264
Supplies.....	449,759	109,405	702,611	609,838	2,046,652	2,156,482
Other expenditures.....	85,174	11,711	32,421	291,902	1,002,181	1,313,331
Totals, Expenditures.....	793,435	233,531	1,355,391	1,649,483	5,066,403	7,181,077
Cost per patient day ¹	5.99	4.32	5.80	5.51	3.56	4.58

For footnote, see end of table, p. 250.

12.—Financial Statistics for Tuberculosis Sanatoria, by Provinces, 1950—concluded

Item	Manitoba	Saskatchewan	Alberta	British Columbia	Total
	No.	No.	No.	No.	No.
Sanatoria reporting.....	4	3	4	6 ²	56
Revenues—	\$	\$	\$	\$	\$
Government and municipal grants and payments.....	1,066,414	1,674,385	1,025,344	2,582,065	20,157,414
Pay patients.....	3,326	—	2,340	95,656	656,966
Other sources.....	61,673	37,808	—	—	1,478,288
Totals, Revenues.....	1,131,413	1,712,193	1,027,684	2,677,721	22,292,668
Expenditures—					
Salaries and wages.....	586,732	913,180	388,940	1,282,527	10,639,232
Supplies.....	419,585	463,433	125,146	681,664	7,764,575
Other expenditures.....	191,385	334,092	513,599	713,527 ³	4,489,323
Totals, Expenditures..	1,197,702	1,710,705	1,027,685	2,677,718³	22,893,130
Cost per patient day ¹	4.65	5.74	6.01	8.67	4.85

¹ Perquisites, out-patient expenditures and non-operating expenditures deducted. ² Includes all institutions operated by the provincial Division of Tuberculosis Control. ³ Includes \$145,624 cover contracts for care of patients in units of other hospitals.

Subsection 4.—Statistics of Federal Government Hospitals

Hospitals operated by the Federal Government are conducted for special purposes connected with departmental administration, such as care of war veterans and members of the Armed Forces, quarantine and care of immigrants and lepers, care of Indians, etc.

Veterans Affairs Hospitals.*—The accommodation and movement of patients in hospitals administered by the Department of Veterans Affairs, together with their locations, are given in Table 13.

* Revised in the Department of Veterans Affairs, Ottawa.

13.—Accommodation and Movement of Patients in Veterans Affairs Hospitals, 1951

NOTE.—Statistics re veterans pavilions attached to civilian hospitals are not included.

Type of Hospital and Location	Bed Capacity	Personnel		Movement of Patients			
		Salaried Doctors	Total	In Residence Beginning of Year	Admissions During Year	In Residence End of Year	Total Patient Days During Year
	No.	No.	No.	No.	No.	No.	No.
Active Treatment Hospitals—							
Halifax, N.S.....	550	10	466	306	3,069	341	140,438
Saint John, N.B.....	450	10	434	293	3,108	262	113,049
Quebec, Que.....	275	3	267	156	2,262	137	71,924
Montreal, Que.....	700	11	839	479	5,906	471	194,904
Ste. Anne de Bellevue, Que..	1,100	8	767	1,066	732	1,060	383,432
Toronto, Ont.....	1,500	24	1,711	1,057	8,341	1,046	415,612
London, Ont.....	1,500	16	1,134	1,165	4,914	1,186	460,540
Winnipeg, Man.....	850	9	743	649	5,421	655	252,760
Saskatoon, Sask.....	125	3	107	115	976	108	42,641
Calgary, Alta.....	375	10	324	323	3,546	295	116,812
Vancouver, B.C.....	1,120	12	1,007	910	5,942	926	344,828
Victoria, B.C.....	225	1	249	190	1,713	198	71,941
Totals, Active Treatment Hospitals.....	8,770	117	8,048	6,709	46,830	6,685	2,608,881

13.—Accommodation and Movement of Patients in Veterans Affairs Hospitals, 1951 —concluded

Type of Hospital and Location	Bed Capacity	Personnel		Movement of Patients			
		Salaried Doctors	Total	In Residence Beginning of Year	Ad- missions During Year	In Residence End of Year	Total Patient Days During Year
	No.	No.	No.	No.	No.	No.	No.
Health and Occupational Centres—							
Ottawa, Ont.....	150	5	100	125	187	121	43,431
Toronto, Ont.....	150	—	62	135	178	133	48,499
Burnaby, B.C.....	200	1	81	211	812	195	72,567
Totals, Health and Occu- pational Centres.....	500	6	243	471	1,177	449	164,497
Special Institution—							
Ste. Hyacinthe, Que.....	200	5	224	165	232	153	60,544
Veterans Homes—							
Toronto, Ont.....	165	2	107	158	107	160	59,018
Amherstburg, Ont.....	30	—	13	21	13	24	8,922
Regina, Sask.....	50	2	26	60	79	59	20,773
Edmonton, Alta.....	70	1	26	71	178	68	25,060
Totals, Veterans Homes.....	315	5	172	310	377	311	113,773
Grand Totals.....	9,785	133	8,687	7,655	48,616	7,598	2,947,695

During 1950 and 1951 new facilities included a nurses' residence at Westminster Hospital, London, Ont., with accommodation for 216 nurses, and the remodelled Annex at Halifax, N.S., which now has accommodation for 78 patients requiring domiciliary care. Under the hospital construction program to replace outmoded accommodation by modern fireproof buildings, progress was made on the construction of new facilities at Lancaster Hospital, Saint John, N.B., which will be completed in 1952. A 60-bed addition to the Veterans' Hospital at Victoria, B.C., will also be completed in 1952 and a 300-bed hospital is under construction at Quebec, Que.

Early in 1952 the Veterans' Home at Halifax was closed, Lyndhurst Lodge at Toronto was transferred to the Canadian Paraplegia Association, Christie Street Hospital was transferred to the City of Toronto to be used as a home for the aged, and York Health and Occupational Centre at Toronto was closed.

Amalgamations in 1950 and 1951 included: Western Counties Veterans' Lodge with Westminster Hospital, London, Ont.; Senneville Health and Occupational Centre with Ste. Anne's Hospital, Ste. Anne de Bellevue, Que.; Ridgewood Health and Occupational Centre with Lancaster Hospital, Saint John, N.B.; Veterans' Home with Deer Lodge Hospital, Winnipeg, Man.; Calgary Convalescent Hospital with Colonel Belcher Hospital, Calgary, Alta.; and Hycroft Veterans' Lodge with Shaughnessy Hospital, Vancouver, B.C. The functions of these amalgamated units remain unchanged but they now operate as wings or divisions of the parent unit.

The numbers of patients in Veterans Affairs hospitals at Dec. 31, 1950, and Dec. 31, 1951, were 7,655 and 7,598, respectively, classified by status and treatment groups as follows:—

<i>Patient Strength</i>	1950	1951	<i>Treatment Group</i>	1950	1951
World War I.....	4,802	4,824	General.....	5,759	5,681
World War II.....	2,336	1,964	Tuberculosis.....	624	544
Other.....	517	810	Mental.....	1,272	1,373

Clinical treatments in Departmental institutions numbered 483,202 in 1950 and 451,149 in 1951.

Department of National Defence Hospitals.*—Table 14 shows accommodation and movement of patients in National Defence hospitals for the year 1951. Thirty-one of these hospitals are equipped to provide radiology services, 31 to provide laboratory services, 14 have facilities for physio-therapy treatments and all but one conduct out-patient departments.

* Revised in the Department of National Defence, Ottawa.

14.—Accommodation and Movement of Patients in Department of National Defence Hospitals, 1951

Service and Location of Hospital	Bed Capacity	Personnel		Movement of Patients			
		Salaried Doctors	Total	In Residence Beginning of Year	Ad-missions During Year	In Residence End of Year	Total Patient Days During Year
	No.	No.	No.	No.	No.	No.	No.
Navy—							
Cornwallis, N.S.....	100	2	28	12	1,492	29	11,642
Dartmouth, N.S.....	25	1	10	7	303	7	1,869
Esquimalt, B.C.....	100	5	63	29	1,641	18	16,845
Halifax, N.S.....	200	7	83	41	1,793	37	23,882
Army—							
Calgary, Alta. ¹	50	5	44	40	1,537	42	20,866
Camp Borden, Ont.....	35	3	34	5	1,443	21	10,160
Chilliwack, B.C.....	15	1	9	—	177	2	762
Fort Churchill, Man.....	60	4	58	18	1,045	17	9,489
Kingston, Ont.....	125	9	109	21	1,905	71	29,210
London, Ont.....	15	1	14	—	336	11	1,964
Montreal, Que. ¹	50	6	49	78	1,668	126	40,511
Petawawa, Ont.....	50	2	39	8	813	15	5,927
Quebec, Que.....	75	6	67	26	1,643	39	19,025
Rivers, Man.....	35	2	25	3	284	3	2,824
Shilo, Man.....	50	3	47	10	1,223	12	7,248
Toronto, Ont.....	100	9	120	85	2,155	75	20,282
Valcartier, Que.....	15	1	14	2	—	—	—
Vancouver, B.C. ¹	50	5	40	27	1,114	39	16,701
Wainwright, Alta.....	100	7	81	—	533	—	2,911
Whitehorse, Yukon.....	50	4	46	8	808	16	6,727
Winnipeg, Man. ¹	50	5	41	23	1,256	56	21,615
Air Force—³							
Aylmer, Ont.....	25	2	27	1	328	—	1,488
Bagotville, Que.....	10	1	5	..	..	..	..
Camp Borden, Ont.....	25	2	12	..	..	..	..
Centralia, Ont.....	25	2	20	1	360	1	1,749
Chatham, N.B.....	10	2	8	—	132	1	490
Claresholm, Alta.....	25	1	7	..	..	..	..
Clinton, Ont.....	35	2	20	—	270	8	943
Edmonton, Alta.....	17	2	15	5	402	3	2,131
Fort Nelson, B.C.....	25	1	6	—	83	—	433
Gimli, Man.....	15	2	13	—	101	3	455
Goose Bay, Nfld.....	35	3	25	—	440	5	3,365
Greenwood, N.S.....	25	2	24	2	234	5	1,248
Lachine, Que.....	..	2	6	..	..	..	..
MacDonald, Man.....	..	1	4	..	..	..	..
North Bay, Ont.....	10	1	5	..	..	..	..
North Luffenham, England	17	3	31	..	..	..	..
Rockcliffe, Ont.....	100	7	74	20	1,949	19	18,580
St. Hubert, Que.....	..	2	17	..	..	..	..
St. John's, Que.....	60	5	34	—	434	19	2,259
Saskatoon, Sask.....	..	..	3	..	..	..	..
Sea Island, B.C.....	5	2	8	..	..	..	..
Summerside, P.E.I.....	25	2	12	1	377	2	1,772
Trenton, Ont.....	50	4	45	4	907	4	5,350
Uplands, Ont.....	10	1	6	..	..	..	..
Whitehorse, Yukon.....	..	1	2	..	..	..	..
Winnipeg, Man.....	40	2	11	..	..	..	..

¹ Integrated with Department of Veterans Affairs hospital at the same location.

² This unit was not functioning as an individual establishment until Jan. 1, 1952.

³ A number of the listed units were activated in the latter part of 1951. In some cases no data are available and in other cases the data given are for comparatively short periods.

National Health and Welfare Hospitals.—The Department operates quarantine and immigration hospitals, hospitals for sick mariners, hospitals for lepers and hospitals for the Indian and Eskimo population. Table 15 provides data on accommodation and the movement of patients in these institutions.

Data for 1950 show that there were 570,499 patient days in hospitals operated by Indian Health Services. Total patient days in immigration, sick mariners and leper hospitals in 1951 were 64,167. There were no patients suffering from major infectious diseases in any of the quarantine units during the year 1951. These units are kept in reserve to meet emergency requirements.

15.—Accommodation and Movement of Patients in National Health and Welfare Hospitals

Type of Hospital and Location	Bed Capacity ²	Personnel		Movement of Patients ¹			
		Salaried Doctors	Total	In Residence Beginning of Year	Admissions During Year	In Residence End of Year	Total Patient Days During Year
	No.	No.	No.	No.	No.	No.	No.
Quarantine, Immigration, Sick Mariner and Leper, 1951—							
Quarantine—							
Halifax, N.S.....	7	2	4	—	—	—	—
Saint John, N.B.....	7	1	4	—	—	—	—
Quebec, Que.....	7	2	3	—	—	—	—
William Head, B.C.....	48	2	6	—	—	—	—
Immigration—							
Halifax, N.S.....	25	2	8	4	277	6	2,640
Saint John, N.B.....	25	1	4	7	55	13	478
Quebec, Que.....	200	4	81	114	762	179	55,733
Sick Mariner—							
Sydney, N.S.....	35	1	22	5	89	7	1,391
Lunenburg, N.S.....	15	1	2	6	27	2	459
Leper—							
Tracadie, N.B.....	12	1	1 ³	6	1	7	2,462
Bentinek Island, B.C.....	12	1	3	2	2	4	1,004
Totals, Quarantine, etc...	393	18	138	144	1,213	218	64,167
Indian Health Service, 1950—⁴							
Maliseet, N.B.....	6	—	2	2	108	2	586
Moose Factory, Ont.....	133	1	40	—	118	83	9,301
Manitowaning, Ont.....	15	1	10	6	266	3	2,995
Sioux Lookout, Ont.....	90	3	66	23	460	85	23,406
Fort William, Ont. ⁵	18	—	10	20	27	17	4,200
Selkirk, Man. ⁵	50	4 ¹	33	43	72	44	16,084
The Pas, Man. ⁵	164	2	100	150	210	140	54,824
Pine Falls, Man.....	18	1	13	8	487	13	4,669
Hodgson, Man.....	39	1	22	17	383	22	9,313
Brandon, Man. ⁵	256	2	151	247	183	251	93,124
North Battleford, Sask.....	65	—	40	19	677	37	10,924
Edmonton, Alta.....	497	9	251	400	605	444	157,184
Gleichen, Alta.....	45	1	6	18	531	14	5,434
Brocket, Alta.....	10	1	4	2	184	—	1,208
Cardston, Alta.....	47	1	14	17	850	17	6,488
Morley, Alta.....	10	1	6	5	193	4	1,325
Sardis, B.C. ⁵	108	2	103	93	96	99	35,029
Nanaimo, B.C. ⁵	220	3	153	201	113	212	74,042
Miller Bay, B.C. ⁵	170	3	128	159	141	169	60,363
Totals, Indian Service..	1,961	36	1,152	1,430	5,704	1,656	570,499

¹ Exclusive of newborn.² Exclusive of bassinets.³ In addition to staff of Hotel Dieu

Hospital.

⁴ Exclusive of one hospital in Ontario, one in Manitoba and one in Saskatchewan which did not report.⁵ Tubercular patients only.

PART II.—PUBLIC WELFARE AND SOCIAL SECURITY*

Responsibility for social welfare in Canada has rested in large part on the provinces which, in turn, have delegated an important share of this responsibility to the municipalities. While constitutional authority has not changed, except with respect to unemployment insurance and old age pensions, the financial participation of the Federal Government has been greatly extended in the past two decades in the provision of income maintenance payments.

The creation of the Department of National Health and Welfare in 1944 established for the first time in the Federal Government a Department in which matters of welfare are a major responsibility. The Department is charged with the administration of Federal Acts relating to welfare which are not assigned by law to other departments. In addition to the general promotion of social welfare, the Welfare Branch of the Department administers the family allowances program, the old age security program and the federal aspects of old age assistance and allowances for blind persons. In addition, grants are made to the provinces for physical fitness.

Unemployment insurance is administered by the Unemployment Insurance Commission; welfare and health services for veterans by the Department of Veterans Affairs; and the welfare of Indians and Eskimos by the Department of Citizenship and Immigration and the Department of Resources and Development, respectively.

Administration and financial responsibility in other fields of welfare, such as mothers' allowances, child protection and general assistance or relief, are left entirely with the provinces and their local subdivisions.

Major developments in 1951 included the amendment to the British North America Act allowing the Federal Parliament to legislate with respect to old age pensions, and the changes in federal and provincial legislation for old age income security and for pensions for the blind.

Section 1.—Federal Government Programs

Subsection 1.—Family Allowances

The Family Allowances Act, 1944, was introduced as a basic social security measure designed to assist in providing equal opportunity for all Canadian children. The allowances, which involve no means test, are paid entirely out of the Federal Consolidated Revenue Fund and are not part of taxable income under income tax, although persons with children eligible for family allowances obtain a smaller income tax exemption for such children than for children not so eligible.

Allowances are payable in respect of every child under the age of 16 years who was born in Canada or has been a resident of the country for one year, or whose father or mother was domiciled in Canada for three years immediately prior to the birth of the child. Monthly payment is made normally to the mother although any person who substantially maintains the child may be paid the allowance on his behalf. The allowances are paid at the monthly rate of \$5 for each child under 6 years; \$6 for each child from 6 to 9 years; \$7 for each child from 10 to 12 years; and \$8 for each child from 13 to 15 years. The allowances are paid by cheque,

* Except as otherwise indicated, this Part was prepared in the Research Division, Department of National Health and Welfare, Ottawa.

except for Eskimo children and a group of Indian children for whom payment is made largely in kind because of lack of exchange facilities in remote areas and the need for education in the use of nutritive foods.

If it is satisfactorily shown to the authorities that the allowances are not being spent for the purpose outlined in the Act, payment may be discontinued or made to some other person or agency on behalf of the child. Allowances are not payable for any child who fails to comply with provincial school regulations or on behalf of a girl who, although she is under 16 years of age, is married.

Family allowances are administered by the National Director of Family Allowances of the Department of National Health and Welfare through Regional Directors in offices located in each provincial capital. A Welfare Section in each Regional Office deals with welfare questions arising out of the administration of allowances. A Supervisor of Welfare Services advises each Regional Director and reports through him to the Chief Supervisor of Welfare Services, who acts in a similar advisory capacity to the National Director. The actual preparing and issuing of the cheques is the responsibility of the treasury division of each Regional Office which reports to the Chief Treasury Officer of the Department of Finance with the Department of National Health and Welfare.

The Regional Director for the Yukon and Northwest Territories, located at Ottawa, is responsible for payments to families in those areas. Close co-operation is maintained with the Departments of Citizenship and Immigration and of Resources and Development which are responsible for the welfare of Indians and Eskimos, respectively (see Subsection 5, pp. 258-260).

1.—Family Allowance Statistics, by Provinces, Years Ended Mar. 31, 1948-51

Province	Year Ended Mar. 31-	Families Receiving Allowance in March	Children for Whom Allowance Paid in March	Average Number of Children per Family in March	Average Allowance ¹		Net Total Allowances Paid During Fiscal Year
					per Family	per Child	
		No.	No.	No.	\$	\$	\$
Newfoundland ²	1950	50,694	139,571	2.75	16.48	5.99	9,747,030
	1951	51,663	145,230	2.81	16.87	6.00	10,224,103
Prince Edward Island....	1948	12,748	31,861	2.50	14.90	5.96	2,256,477
	1949	12,920	32,621	2.52	14.89	5.90	2,295,286
	1950	13,165	33,588	2.55	15.41	6.04	2,411,291
	1951	13,317	34,308	2.58	15.56	6.04	2,467,257
Nova Scotia.....	1948	87,170	202,029	2.32	13.78	5.95	14,207,958
	1949	88,927	207,282	2.33	13.76	5.90	14,515,131
	1950	91,012	213,981	2.35	14.18	6.03	15,291,614
	1951	92,095	218,496	2.37	14.32	6.04	15,660,003
New Brunswick.....	1948	68,510	175,390	2.56	14.91	5.82	12,086,892
	1949	70,610	181,921	2.58	14.96	5.81	12,462,093
	1950	72,410	188,593	2.60	15.61	5.99	13,375,434
	1951	72,692	191,608	2.63	15.77	5.98	13,708,198
Quebec.....	1948	468,680	1,260,735	2.69	15.66	5.82	87,157,243
	1949	488,263	1,302,242	2.67	15.47	5.80	89,304,108
	1950	507,727	1,350,588	2.66	16.00	6.01	95,901,763
	1951	525,358	1,405,161	2.67	16.06	6.00	99,558,247
Ontario.....	1948	555,658	1,096,779	1.97	11.79	5.97	77,328,535
	1949	575,961	1,140,778	1.98	11.81	5.96	80,151,250
	1950	603,847	1,204,558	1.99	12.01	6.02	84,940,809
	1951	627,511	1,265,313	2.02	12.07	5.99	89,034,871

¹For footnotes, see end of table, p. 256.

1.—Family Allowance Statistics, by Provinces, Years Ended Mar. 31, 1948-51—concluded

Province or Territory	Year Ended Mar. 31-	Families Receiving Allowance in March	Children for Whom Allowance Paid in March	Average Number of Children per Family in March	Average Allowance ¹		Net Total Allowances Paid During Fiscal Year
					per Family	per Child	
		No.	No.	No.	\$	\$	\$
Manitoba.....	1948	99,954	207,544	2.08	12.42	5.98	14,798,437
	1949	101,917	211,752	2.08	12.36	5.95	15,016,278
	1950	105,611	220,862	2.09	12.58	6.02	15,668,695
	1951	108,288	228,245	2.11	12.66	6.00	16,235,520
Saskatchewan.....	1948	114,613	257,611	2.25	13.45	5.98	18,561,330
	1949	115,170	258,370	2.24	13.37	5.96	18,527,408
	1950	116,917	261,623	2.24	13.56	6.06	18,953,600
	1951	118,276	264,582	2.24	13.59	6.08	19,237,071
Alberta.....	1948	119,739	255,848	2.14	12.78	5.98	18,181,663
	1949	124,173	266,133	2.14	12.75	5.95	18,695,325
	1950	130,686	280,780	2.15	12.89	6.00	19,822,387
	1951	135,864	292,104	2.15	12.91	6.01	20,762,273
British Columbia.....	1948	139,627	260,752	1.87	11.20	6.00	18,012,189
	1949	147,630	279,769	1.89	11.24	5.93	19,347,837
	1950	156,367	299,838	1.92	11.44	5.96	20,813,661
	1951	161,088	313,525	1.95	11.59	5.95	21,952,569
Yukon and Northwest Territories.....	1948	3,245	7,023	2.16	12.75	5.89	574,470
	1949	3,579	7,785	2.17	12.71	5.84	595,063
	1950	3,833	8,281	2.16	13.51	6.25	587,750
	1951	4,040	8,819	2.18	13.89	6.36	625,349
Canada.....	1948	1,669,944	3,755,572	2.25	13.31	5.92	263,165,192
	1949	1,729,150	3,888,653	2.25	13.25	5.89	270,909,779
	1950	1,852,269	4,202,263	2.27	13.64	6.01	297,514,034
	1951	1,910,192	4,367,391	2.29	13.72	6.00	309,465,461

¹ Based on gross payments for March, 1949.² Payment of Family Allowances implemented in April**Subsection 2.—Old Age Security**

Under the Old Age Security Act of 1951, effective January 1952, a universal pension of \$40 per month is payable by the Federal Government to all persons aged 70 or over, subject only to a residence qualification. The resident requirement is 20 years immediately preceding commencement of pension with certain temporary absences allowed. Where the applicant has not so resided for the complete 20 years, the periods of absence may be made up by having been present in Canada, prior to the 20-year period, for double the periods of absence; for these persons, there is a further requirement of one year's residence immediately preceding the commencement of the pension.

Payment of the pension is suspended when the pensioner leaves Canada. On his return, the pension may be resumed and, in the case of absences not exceeding six months, payments may then be made for as much as three in any calendar year.

The program is financed on a pay-as-you-go basis. Payment of the pension is made from the Consolidated Revenue Fund and charged to the Old Age Security Fund account. The income of the Old Age Security Fund is derived from three sources. First, there is a 2 p.c. tax on personal taxable income, that is, on income less exemptions and deductions. The maximum tax per person is \$60 per annum; the tax became effective in July 1952, resulting in a maximum tax of \$30 for that year. The fund will also receive the amount collected by a 2 p.c. tax on corporate

taxable income and the proceeds of a 2 p.c. sales tax. The latter tax is not new but is simply an earmarking of one-fifth of the existing sales tax of 10 p.c. Temporary loans may be made to the Old Age Security Fund, subject to repayment as directed.

It is estimated that the pension payments will cost from \$322,000,000 to \$330,000,000 in the first year of operation—the year ending Mar. 31, 1953. Collections from the three taxes for the same period are estimated at: personal tax, \$52,000,000; corporate tax, \$48,000,000; and sales tax, \$135,000,000; a total of \$235,000,000.

The total number of persons in Canada who were 70 years of age or over in 1952 is estimated at 682,000. Some of these will not be eligible because of insufficient years of residence and certain eligible persons may not apply.

The program is administered by the National Director of Old Age Security of the Department of National Health and Welfare through the ten regional offices established in connection with the payment of family allowances. The two programs are administered largely by the same personnel.

Persons in receipt of pension at the end of 1951 under the Old Age Pensions Act of 1927 were transferred to the rolls of the universal pension as of January 1952, without further action on their part. Other persons make application to the regional director located at their provincial capital. The regional director for the Yukon and Northwest Territories is located at Ottawa. In certain provinces supplements are payable to recipients of old age security.

2.—Old Age Security Statistics, by Provinces, January, February and March 1952

Province and Month	Pensioners	Pensions Paid (Gross)	Province or Territory and Month	Pensioners	Pensions Paid (Gross)
	No.	\$		No.	\$
Newfoundland—			Manitoba—		
January.....	14,056	562,240	January.....	36,144	1,445,760
February.....	14,097	565,920	February.....	37,351	1,502,040
March.....	14,177	569,160	March.....	37,826	1,525,840
Prince Edward Island—			Saskatchewan—		
January.....	6,162	246,480	January.....	35,622	1,424,880
February.....	6,279	253,880	February.....	36,316	1,470,480
March.....	6,338	255,440	March.....	37,153	1,510,400
Nova Scotia—			Alberta—		
January.....	33,547	1,341,880	January.....	35,194	1,407,760
February.....	34,169	1,373,600	February.....	35,895	1,444,240
March.....	34,832	1,420,240	March.....	36,637	1,485,080
New Brunswick—			British Columbia—		
January.....	24,044	961,760	January.....	69,325	2,773,000
February.....	24,382	985,280	February.....	70,825	2,853,960
March.....	24,540	988,840	March.....	72,225	2,922,360
Quebec—			N.W.T. and Yukon—		
January.....	135,265	5,410,600	January.....	377	15,080
February.....	138,146	5,598,040	February.....	401	16,600
March.....	139,954	5,638,000	March.....	406	16,760
Ontario—			Canada—		
January.....	227,864	9,114,560	January.....	617,600	24,704,000
February.....	233,774	9,523,480	February.....	631,635	25,588,120
March.....	238,925	9,700,680	March.....	643,013	26,032,800

Subsection 3.—Unemployment Insurance and National Employment Service

In 1940, by an amendment to the British North America Act, the Federal Government was given jurisdiction in the field of unemployment insurance and the Unemployment Insurance Act was passed, establishing a national system of unemployment insurance which is outlined in Chapter XVIII.

The National Employment Service is operated in conjunction with the unemployment insurance scheme. It is administered through the employment and claims offices and supervised by the Department of Labour. This program is also described in Chapter XVIII.

Subsection 4.—Prairie Farm Assistance

The Prairie Farm Assistance Act is administered by the Department of Agriculture; a description of the legislation is given in Chapter X.

Subsection 5.—Welfare Services for the Indian and Eskimo

Indian Welfare.*—In addition to direct relief of all kinds for destitute Indians which is provided to prevent hardship, the Government of Canada, through the Department of Citizenship and Immigration, promotes a number of activities designed to assist individuals and bands to achieve self-support or to better their economic position. During the year ended Mar. 31, 1951, \$3,925,172 was spent for direct relief in the form of food, fuel, clothing, household equipment and care for helpless and indigent Indians. In addition, special diets were provided for convalescent tubercular Indians in the post-hospitalization period.

Indians in Canada are eligible for family allowances and old age security on the same basis as non-Indians. Moreover, in most provinces Indians are eligible for the provincially administered old age assistance pension payable to persons 65 to 69 years of age subject to a means test. Blind Indians in most provinces are also eligible for the blind persons allowances.

Family allowances amounting to \$3,619,075 were paid to 20,399 Indian families in 1951. This income has exerted a very great influence on Indian Reserves toward the betterment of the children's diet, their clothing and school attendance. It is estimated that approximately \$2,500,000 will be paid annually to Indians 70 years of age or over through old age security pensions. This income, in addition to that paid to Indians in the 65-69 age group and to blind Indians, will be of great benefit to these people.

During the year ended Mar. 31, 1951, Indians who were unable to provide adequate housing for themselves were assisted in the construction of 1,082 new houses and with repairs to 2,052 houses. The Departmental contribution to this program was \$911,991 for new construction and \$195,701 for repairs.

Grants for settlement under the Veterans' Land Act were obtained for 122 Indian veterans, bringing the total number of such grants to 1,212 amounting to \$2,721,868.

The Indian Affairs Branch operates a service for the promotion and sale of Indian handicraft to merchants in all parts of Canada. The articles include utilitarian and ornamental or novelty baskets and items made of bark and wood, the

* Prepared in the Indian Affairs Branch, Department of Citizenship and Immigration, Ottawa.

value of which amounted to \$30,000 in 1951. This work provides a steady income for a limited number of Indian women and men and is done mostly in the home. Handicraft articles are also often produced on a part-time basis for local sale to tourists.

The fur-development program undertaken in co-operation with the various provinces was continued during 1951 and the benefits accruing to Indians were most apparent with respect to beaver production in Manitoba, Saskatchewan and Ontario. In the 1951 season these three Provinces took over 100,000 beaver pelts valued at more than \$2,000,000 of which approximately \$1,300,000 was paid to the participating Indian trappers. In Quebec, extensive areas are set aside exclusively for Indian trappers under joint management by the Indian Affairs Branch and the Quebec Department of Fish and Game. In these reserves, the beaver has been successfully rehabilitated, by means of management and control through registered traplines, from a state of virtual depletion to the point where Indians, in 1951, realized \$376,032 from that fur-bearer alone. The program has also been extended to take in such fur-bearers as the fisher and the marten.

Eskimo Welfare.*—One of Canada's most challenging welfare-administrative problems is the task of assisting its Eskimo citizens to adjust themselves to changing conditions in the Arctic. Since the turn of the present century, when trading posts started to appear in Eskimo territory, marked changes have taken place in Eskimo culture and ways of living and recently improved means of transportation and communication have stimulated interest in the Arctic and have accelerated those changes.

Rifles and modern tools and equipment have largely supplanted primitive weapons and implements and most Eskimos now depend, to some extent at least, on the trade stores for their needs although they are still able to obtain a good part of their food, clothing and shelter off their own country. Their purchases of imported goods must be made from trapping proceeds and, except for muskrats which are available in the Mackenzie Delta only, the white fox is the only resource of any considerable economic value to the Eskimos. And an unstable resource it is, being subject to wide fluctuations both in numbers and in value from year to year. This has been very apparent in recent years when prices have declined to particularly low levels.

The Northern Administration and Lands Branch of the Department of Resources and Development is responsible for administration of Eskimo affairs. The Department of National Health and Welfare is responsible for health and medical services. Royal Canadian Mounted Police detachments throughout the north undertake field duties for both Departments. The problems involved in looking after a sparse Eskimo population scattered over about 900,000 sq. miles of territory requires the continuous co-operation of all northern inhabitants, including teachers, missionaries, traders, doctors, nurses, radio operators and weather-station personnel.

Missions, assisted by government grants, operate hospitals at Aklavik, Chesterfield Inlet and Pangnirtung, and the Department of National Health and Welfare has nursing stations at Coppermine, Fort Chimo, Coral Harbour, Port Harrison, Cape Dorset and Lake Harbour. Extensive tuberculosis and other medical surveys have been made in recent years and, where necessary, patients have been brought

* Prepared in the Northern Administration and Lands Branch, Department of Resources and Development, Ottawa.

to hospitals outside for treatment. After-care of such patients and their rehabilitation after returning home sometimes raises problems requiring close co-operation of all parties concerned.

Government schools are operating in eight of the larger centres—Aklavik, Tuktoyaktuk, Coppermine, Chesterfield Inlet, Coral Harbour, Cape Dorset, Port Harrison and Fort Chimo. At a number of other settlements schools are operated by missions, assisted by Government grants. Missions are also assisted in the operation of two industrial homes, one at Chesterfield Inlet and the other at Pangnirtung, where aged and physically handicapped Eskimos are cared for. In co-operation with the Canadian Handicrafts Guild, Northern Administration has been promoting handicrafts in the Eastern Arctic. This development began in 1949 and each year since then qualified instructors have been sent into the field to expand the work. Many interesting items have been produced and readily disposed of throughout Canada. Eskimos are encouraged to follow trades, such as reindeer herding and fishing, and are given some assistance in their efforts.

Studies are being made relating to the conservation of the wildlife resources, particularly caribou and marine animals, on which Eskimos depend greatly for food and clothing. Game preserves have been established and regulations made to preserve these resources for the sole benefit of the Eskimo population.

Family allowances are paid to Eskimos in kind from a list drawn up in co-operation with the Department of National Health and Welfare. This list is designed to supplement rather than to supplant the normal native diet. Under recent legislation, Eskimos also enjoy the full benefits of old age security pensions, old age assistance and pensions for the blind.

Subsection 6.—Government Annuities*

Under the Government Annuities Act (R.S.C. 1927, c. 7, amended by c. 33, 1931) passed in 1908, the Federal Government carries on a service to assist Canadians to make provision for old age. The Act is administered by the Minister of Labour.

A Canadian Government annuity is a fixed yearly income purchased from and paid by the Government of Canada. The annuity is payable in monthly instalments for life, or for life and guaranteed for a period of years. The minimum annuity is \$10 and the maximum \$1,200 a year. Annuity contracts may be deferred or immediate. Under deferred annuity contracts purchase is by periodic or single premiums. Immediate annuity contracts provide immediate income.

The property and interest of the annuitant are neither transferable nor attachable. In the event of the death of the annuitant before a deferred annuity vests, all money paid is refunded to the purchaser or his legal representative with interest. Provision is made in the Act for group annuity contracts, whereby employers may contract for the purchase of annuities on behalf of their employees, or associations on behalf of their members, the purchase money being derived partly from wages and partly from employer contributions. Group annuity plans now in effect cover a variety of industries and many municipal corporations throughout Canada. Annuities arising from individual contracts are taxable as to the interest portion of the annuity payment and the return-of-capital portion is exempt; annuities arising from approved pension plans are fully taxable but the employee and the employer are entitled to tax exemption year by year on their annual contributions to the pension plan.

* Revised in the Government Annuities Branch, Department of Labour, Ottawa.

From Sept. 1, 1908, the date of the inception of the system, to Mar. 31, 1952, the total number of annuity contracts and certificates issued was 331,791. Of these, 42,098 have been cancelled (including 3,158 cancelled in 1951-52) leaving in effect on Mar. 31, 1952, 289,693 contracts and certificates. The total amount of purchase money received up to Mar. 31, 1952, was \$710,499,698.

Up to Mar. 31, 1952, 915 corporations, institutions and associations, as compared with 900 up to Mar. 31, 1951, had entered into agreements with the Government to purchase annuities. Under these agreements, 131,749 employees or members were holding certificates for purchase of deferred annuities as compared with 128,299 one year earlier. The number of certificates issued under groups in the year 1951-52 was 12,135 as compared with 15,028 in the previous year.

3.—Government Annuities Contracted and Purchase Money Received, Years Ended Mar. 31, 1933-52

NOTE.—Figures for the years 1909 to 1932 will be found at p. 873 of the 1942 Year Book.

Year	Contracts and Certificates	Purchase Money Received	Year	Contracts and Certificates	Purchase Money Received
	No.	\$		No.	\$
1933.....	1,375	3,547,345	1943.....	9,608	20,415,365
1934.....	2,412	7,071,439	1944.....	19,354	26,600,098
1935.....	3,930	13,376,400	1945.....	15,796	33,076,436
1936.....	6,357	21,281,981	1946.....	25,538	46,954,536
1937.....	7,806	23,614,824	1947.....	43,585	72,009,764
1938.....	5,724	13,550,483	1948.....	40,945	75,067,827
1939.....	8,518	18,189,319	1949.....	36,332	64,311,116
1940.....	9,014	20,001,533	1950.....	21,078	63,133,242
1941.....	11,994	18,803,645	1951.....	21,775	59,648,323
1942.....	8,593	19,630,645	1952.....	17,038	57,548,671

4.—Government Annuities Fund Statements, Years Ended Mar. 31, 1948-52

Item	1948	1949	1950	1951	1952
Assets	\$	\$	\$	\$	\$
Fund at beginning of fiscal year.....	357,161,953	429,518,235	501,737,659	563,182,111	620,398,995
Receipts during the year, less payments..	72,356,282	72,219,424	61,444,452	57,216,884	55,532,708
Fund at end of fiscal year.....	429,518,235	501,737,659	563,182,111	620,398,995	675,931,703
Liabilities					
Value of outstanding contracts.....	429,518,235	501,737,659	563,182,111	620,398,995	675,931,703
Receipts					
Immediate annuities.....	20,874,824	9,363,110	8,500,020	6,954,048	4,437,155
Deferred annuities.....	54,748,242	55,193,325	55,165,127	53,101,159	53,438,891
Interest on fund.....	15,250,733	17,804,595	20,504,145	22,680,245	24,671,668
Amount transferred to maintain reserve..	331,857	11,408,468	1,255,772	659,787	940,138
Totals, Receipts.....	91,205,656	93,769,498	85,425,064	83,395,239	83,487,852
Payments					
Payments under vested annuity contracts	17,588,142	20,120,185	22,031,613	23,964,819	25,820,310
Return of premiums with interest.....	705,993	1,184,569	1,417,094	1,806,652	1,807,459
Return of premiums without interest.....	555,239	245,319	531,805	406,884	327,375
Totals, Payments.....	18,849,374	21,550,074	23,980,612	26,178,355	27,955,144

5.—Numbers and Values of Annuity Contracts, as at Mar. 31, 1951 and 1952

Classification	1951			1952		
	Contracts	Amount of Annuity	Value, at Mar. 31, of Contracts in Force	Contracts	Amount of Annuity	Value, at Mar. 31, of Contracts in Force
	No.	\$	\$	No.	\$	\$
Immediate.....	22,395	8,541,037	81,625,477	23,776	9,119,867	86,089,722
Immediate guaranteed.....	28,108	13,911,027	162,542,341	29,817	15,113,865	174,277,914
Immediate last survivor.....	4,523	2,117,727 ¹	29,056,432	4,464	2,107,871	28,565,657
Deferred.....	220,787		347,174,745	231,636		386,998,410
Totals.....	275,813	24,569,791²	620,398,995	289,693	26,341,603²	675,931,703

¹ Undetermined.² Immediate annuities only.

Section 2.—Federal-Provincial Programs

Subsection 1.—Old Age Assistance

The Old Age Assistance Act of 1951, effective January 1952, provides for financial aid to the provinces toward the provision of assistance, not exceeding \$40 a month, to persons aged 65-69 subject to a residence qualification of at least 20 years. Within the limits of the Federal Act each province is free to fix the amount of the maximum assistance payable, the maximum income allowed and other conditions of eligibility. The Federal Government's contribution per recipient cannot exceed 50 p.c. of \$40 per month or of the assistance paid, whichever is less.

For an unmarried person the total income allowed including assistance cannot exceed \$720 a year; for a married couple, \$1,200 a year; where the spouse is blind within the meaning of the Blind Persons Act, the total income of the couple cannot exceed \$1,320 a year. The exact pension payable in each case depends on the amount of outside income and the resources of the applicant and his spouse. To be eligible for assistance the applicant must not be in receipt of an allowance under the Blind Persons Act or the War Veterans' Allowance Act. The applicant must have resided in Canada for at least 20 years immediately preceding the commencement of the assistance, but may have certain temporary absences; where the applicant has not so resided for the 20 years he must have been physically present in Canada, prior to the 20 years, for a total period equal to twice the total of the absences during the 20 years.

Implementation of the program in any province is contingent upon the province passing enabling legislation and signing an agreement with the Federal Government. The program became effective January 1952 in all provinces, except Newfoundland, and in the Northwest Territories; in Newfoundland it became effective in April 1952. No agreement had been made with the Yukon Territory by Mar. 31, 1952.

Administrative responsibility for the program is vested in the province; the provincial plan for such administration must be approved by, and cannot be changed except with the consent of, the Governor in Council. Assistance is paid by the province with federal reimbursement made through the Department of National

Health and Welfare. The Old Age Assistance Division of that Department administers the federal aspects of the program. In certain provinces supplements are payable to the recipients of old age assistance.

Table 6 presents the statistics available for the early months of the program; it is not anticipated that the program will mature fully until it has been effective five years.

6.—Old Age Assistance Statistics, by Provinces, January, February and March, 1952

Province or Territory and Month	Recipients	Average Amount of Assistance Monthly	P.C. of Recipients to Population Age 65-69 ¹	Federal Con- tribution for the Month
	No.	\$	p.c.	\$
Prince Edward Island..... Jan.	98	16.87	—	827
Feb.	220	21.58	—	2,374
Mar.	305	21.72	9.33	3,332
Nova Scotia..... Jan.	987	34.39	—	16,972
Feb.	1,541	34.37	—	28,989
Mar.	2,271	34.09	11.68	49,712
New Brunswick..... Jan.	1,746	37.45	—	32,691
Feb.	2,240	37.29	—	49,238
Mar.	3,237	36.91	22.66	83,709
Quebec..... Jan.	3,500	38.81	—	67,925
Feb.	8,167	38.72	—	245,181
Mar.	12,267	38.61	13.17	376,976
Ontario..... Jan.	7,173	37.84	—	135,703
Feb.	10,051	37.62	—	236,624
Mar.	12,697	37.28	8.19	300,185
Manitoba..... Jan.	588	38.51	—	14,389
Feb.	745	38.57	—	33,288
Mar.	1,239	38.45	4.53	59,012
Saskatchewan..... Jan.	1,508	37.01	—	27,907
Feb.	1,991	37.07	—	43,534
Mar.	2,497	36.93	8.58	61,951
Alberta..... Jan.	1,922	37.74	—	38,409
Feb.	2,279	37.58	—	45,106
Mar.	2,954	37.36	10.03	62,537
British Columbia..... Jan.	1,819	38.96	—	53,771
Feb.	3,396	38.37	—	92,654
Mar.	4,134	38.28	7.81	116,223
Northwest Territories ²	—	—	—	—
Canada (exclusive of Newfoundland and Yukon)..... Jan.	19,341	37.75	—	386,594
Feb.	30,630	37.68	—	776,988
Mar.	41,601	37.47	9.76	1,113,637

¹ Population of June 1951. ² In January, February and March 1952 there were no assistance payments in the Northwest Territories.

Subsection 2.—Old Age Pensions Act 1927

For practical purposes the Old Age Pensions Act of 1927 ceased to be effective Dec. 31, 1951, at which time all recipients of pensions thereunder were automatically transferred to the rolls of the universal pension payable under the Old Age Security Act (*see* p. 256). A description of the provisions of the Old Age Pensions Act of 1927 may be found in the Year Book 1951, pp. 234-235. Statistics on the operation of the program up to Dec. 31, 1951, are given in Table 7.

7.—Old Age Pensions Statistics, by Provinces, Years Ended Mar. 31, 1950 and 1951, and Nine Months Ended Dec. 31, 1951

Province and Effective Date of Act	Year Ended Mar. 31-	Average Pension ¹	Pen- sioners ¹	P.C. of Pen- sioners ¹ to Popu- lation ²	P.C. of Persons Age 70 Years or Over to Popu- lation ²	P.C. of Pen- sioners ¹ to Popu- lation Age 70 Years or Over ²	Federal Con- tribution During Year
		\$	No.	p.c.	p.c.	p.c.	\$
Newfoundland..... (Apr. 1, 1949)	1950 1951 1951 ³	29.47 38.01 38.02	10,296 11,394 11,925	2.96 3.21 3.36	3.82 3.89 3.89	77.41 82.57 86.41	2,229,446 3,819,074 3,091,342
Prince Edward Island..... (July 1, 1933)	1950 1951 1951 ³	34.36 34.38 34.92	2,976 3,136 3,226	3.17 3.27 3.36	6.81 6.46 6.46	46.50 50.58 52.03	865,299 945,052 746,064
Nova Scotia..... (Mar. 1, 1934)	1950 1951 1951 ³	35.41 35.65 35.64	19,966 20,808 20,808	3.10 3.16 3.16	5.33 5.33 5.33	58.04 59.28 59.28	6,056,998 6,572,267 5,031,712
New Brunswick..... (July 1, 1936)	1950 1951 1951 ³	36.22 36.48 36.58	16,231 16,681 16,825	3.15 3.20 3.22	4.38 4.46 4.46	71.82 71.59 72.21	5,083,788 5,427,021 4,154,187
Quebec..... (Aug. 1, 1936)	1950 1951 1951 ³	37.73 37.71 37.68	69,017 73,564 75,541	1.78 1.85 1.90	3.42 3.48 3.48	51.85 53.15 54.58	22,328,643 24,478,750 19,115,704
Ontario..... (Nov. 1, 1929)	1950 1951 1951 ³	38.06 37.79 37.73	85,100 91,509 93,175	1.93 2.03 2.07	5.42 5.54 5.54	35.59 36.59 37.26	27,863,894 30,065,394 23,357,032
Manitoba..... (Sept. 1, 1928)	1950 1951 1951 ³	38.44 38.34 38.16	16,868 17,573 17,906	2.17 2.21 2.25	4.74 4.91 4.91	45.71 45.06 45.91	5,578,655 5,984,845 4,599,348
Saskatchewan..... (May 1, 1928)	1950 1951 1951 ³	37.30 37.51 37.48	16,566 17,409 17,844	1.92 1.99 2.04	4.29 4.52 4.52	44.89 44.07 45.17	5,356,205 5,798,980 4,514,081
Alberta..... (Aug. 1, 1929)	1950 1951 1951 ³	37.90 37.63 37.53	16,445 17,990 18,408	1.89 2.01 2.06	4.06 4.23 4.23	46.45 47.47 48.57	5,182,534 5,876,261 4,608,500
British Columbia..... (Sept. 1, 1927)	1950 1951 1951 ³	37.17 36.95 36.75	28,988 31,983 33,060	2.60 2.81 2.91	6.02 6.29 6.29	43.20 44.67 46.17	9,072,353 10,252,116 8,088,759

For footnotes, see end of table.

7.—Old Age Pensions Statistics, by Provinces, Years Ended Mar. 31, 1950 and 1951, and Nine Months Ended Dec. 31, 1951—concluded

Territory and Effective Date of Act	Year Ended Mar. 31-	Average Pension ¹	Pen-sioners ¹	P.C. of Pen-sioners ¹ to Popu-lation ²	P.C. of Persons Age 70 Years or Over to Popu-lation ²	P.C. of Pen-sioners ¹ to Popu-lation Age 70 Years or Over ²	Federal Con-tribution During Year
		\$	No.	p.c.	p.c.	p.c.	\$
Northwest Territories..... (Jan. 25, 1929)	1950	39-71	23	0-19	1-52	12-57	9,898
	1951	39-55	26	0-22	1-52	14-21	11,221
	1951 ³	38-69	22	0-18	1-52	12-02	8,956
Yukon Territory..... (Apr. 1, 1949)	1950	38-65	108	2-20	6-67	32-93	24,484
	1951	38-53	100	2-04	6-67	30-49	37,024
	1951 ³	38-75	85	1-73	6-67	25-91	24,327
Canada.....	1950	35-25	282,584	2-08	4-62	45-16	89,652,203
	1951	37-44	302,173	2-19	4-74	46-14	99,268,006
	1951³	39-39	308,825	2-23	4-74	47-16	77,340,012

¹ For the month of March of the fiscal year indicated.

² Based on population estimate for preceding year.

³ Nine months ended Dec. 31; the figures are based on the number of pensioners in December, the average pension in December, and the population estimate for June 1950.

Subsection 3.—Allowances for the Blind

The Blind Persons Act of 1951, effective January 1952, provides for financial aid to the provinces toward the provision of allowances not exceeding \$40 a month to blind persons aged 21 or over, subject to a residence qualification of at least 10 years. Within the limits of the Federal Act, each province is free to fix the amount of the maximum allowance payable and the maximum income allowed. The Federal Government's contribution per recipient cannot exceed 75 p.c. of \$40 per month or of the allowance paid, whichever is less.

For an unmarried person, the total income allowed including the allowance cannot exceed \$840 a year; for an unmarried person with one or more dependent children, \$1,040; for a married couple, \$1,320 a year; where the spouse is also blind within the meaning of the Blind Persons Act, the total income of the couple cannot exceed \$1,440 a year. The exact allowance payable in each case depends on the amount of outside income and the resources of the applicant and his spouse. To be eligible for an allowance the applicant must not be in receipt of assistance under the Old Age Assistance Act, of an allowance under the War Veterans' Allowance Act, of a pension under the Old Age Security Act or of a pension in respect of blindness under the Pensions Act. The applicant must have resided in Canada for at least 10 years immediately preceding the commencement of the allowance but may have certain temporary absences; where the applicant has not so resided for the 10 years he must have been physically present in Canada, prior to the 10 years, for a total period equal to twice the total of the absences during the 10 years.

Implementation of the program in any province is contingent upon the province passing enabling legislation and signing an agreement with the Federal Government. The program became effective in January 1952 in all provinces and in the Yukon and Northwest Territories.

Administrative responsibility for the program is vested in the province; the provincial plan for such administration must be approved by, and cannot be changed except with the consent of, the Governor in Council. The allowances are paid by the province with federal reimbursement made through the Department of National Health and Welfare. The Old Age Assistance Division of that Department administers the federal aspects of the program. In certain provinces, supplements are payable to the recipients of allowances for the blind.

Table 8 presents the statistics available for the early months of the program.

8.—Statistics of Allowances for the Blind, by Provinces, January, February and March, 1952

Province or Territory and Month	Recipients	Average Amount of Allowance Monthly	P.C. of Recipients to Population Age 60-69 ¹	Federal Con- tribution for the Month
	No.	\$	p.c.	\$
Newfoundland.....	Jan. 311	39.62	—	9,241
	Feb. 318	39.23	—	9,424
	Mar. 321	39.26	0.18	9,572
Prince Edward Island.....	Jan. 76	38.13	—	2,173
	Feb. 76	38.13	—	2,173
	Mar. 75	38.10	0.15	2,113
Nova Scotia.....	Jan. 735	38.71	—	21,363
	Feb. 734	38.77	—	21,443
	Mar. 734	38.69	0.21	21,394
New Brunswick.....	Jan. 780	39.23	—	22,952
	Feb. 784	39.24	—	23,210
	Mar. 783	39.25	0.30	23,024
Quebec.....	Jan. 3,073	39.58	—	91,217
	Feb. 3,066	39.54	—	91,411
	Mar. 3,013	39.48	0.14	89,274
Ontario.....	Jan. 1,599	39.15	—	46,950
	Feb. 1,589	39.22	—	47,341
	Mar. 1,604	39.20	0.06	48,693
Manitoba.....	Jan. 403	39.47	—	11,966
	Feb. 404	39.37	—	11,996
	Mar. 401	39.37	0.09	11,987
Saskatchewan.....	Jan. 338	39.47	—	10,006
	Feb. 340	39.22	—	10,080
	Mar. 343	39.25	0.07	10,581
Alberta.....	Jan. 380	39.02	—	11,363
	Feb. 378	38.90	—	11,134
	Mar. 376	38.89	0.07	11,270
British Columbia.....	Jan. 425	38.70	—	12,408
	Feb. 424	39.29	—	12,603
	Mar. 426	39.25	0.06	12,816
Northwest Territories.....	Jan. 1	40.00	—	30
	Feb. 1	40.00	—	30
	Mar. 1	40.00	0.01	30
Yukon Territory ²	Jan. 2	40.00	—	60
	Feb. 2	40.00	—	60
	Mar. 2	40.00	0.03	60
Canada.....	Jan. 8,123	39.29	—	239,729
	Feb. 8,116	39.29	—	240,905
	Mar. 8,079	39.25	0.10	240,814

¹ Population as at June 1, 1951.

² Pensions granted under the Old Age Pensions Act and continued under authority of Sect. 13 (2) of the Blind Persons Act.

The figures of Table 8 do not constitute an extension of those in Table 9 which refer to the pensions payable to the blind under the different residence and means-test conditions of the Old Age Pensions Act of 1927. A description of the pensions payable to the blind under the 1927 Act may be found in the Year Book 1951, pp. 234-235. Table 9 presents the statistics on operations under that Act up to Dec. 31, 1951.

9.—Statistics of Pensions for the Blind, by Provinces, Years Ended Mar. 31, 1950 and 1951, and Nine Months Ended Dec. 31, 1951

Province or Territory and Effective Date of Act	Year Ended Mar. 31-	Average Pension ¹	Pensioners ¹	P.C. of Pensioners ¹ to Population ²	Federal Contribution During Year
		\$	No.	p.c.	\$
Newfoundland.....	1950	29.38	171	0.049	35,662
(Apr. 1, 1949)	1951	39.46	317	0.089	102,737
	1951 ³	39.33	385	0.108	99,956
Prince Edward Island.....	1950	37.66	129	0.137	40,336
(Dec. 1, 1937)	1951	38.22	127	0.132	43,343
	1951 ³	38.15	125	0.130	32,009
Nova Scotia.....	1950	38.44	962	0.149	311,947
(Oct. 1, 1937)	1951	38.35	1,048	0.159	348,338
	1951 ³	38.39	1,028	0.156	267,004
New Brunswick.....	1950	39.06	1,047	0.203	357,877
(Sept. 1, 1937)	1951	39.00	1,067	0.204	377,556
	1951 ³	39.03	1,082	0.207	285,345
Quebec.....	1950	39.07	3,869	0.100	1,312,410
(Oct. 1, 1937)	1951	39.07	4,016	0.101	1,430,107
	1951 ³	39.06	3,948	0.099	1,064,253
Ontario.....	1950	38.88	2,243	0.051	778,909
(Sept. 1, 1937)	1951	38.66	2,408	0.053	830,485
	1951 ³	38.71	2,491	0.055	650,326
Manitoba.....	1950	39.29	539	0.069	184,497
(Sept. 1, 1937)	1951	39.32	573	0.072	203,836
	1951 ³	39.14	554	0.073	156,919
Saskatchewan.....	1950	38.91	472	0.055	161,883
(Nov. 15, 1937)	1951	38.96	484	0.055	171,024
	1951 ³	38.88	498	0.057	133,442
Alberta.....	1950	38.68	453	0.052	148,295
(Mar. 7, 1938)	1951	38.49	494	0.055	167,280
	1951 ³	38.50	507	0.057	129,554
British Columbia.....	1950	38.17	629	0.056	204,086
(Dec. 1, 1937)	1951	38.13	661	0.058	225,083
	1951 ³	38.07	684	0.060	176,317
Yukon Territory.....	1950	40.00	2	0.041	240
(Apr. 1, 1949)	1951	40.00	2	0.041	720
	1951 ³	40.00	2	0.041	540
Canada (including N.W.T.)⁴.....	1950	38.73	10,517	0.078	3,536,730
	1951	38.84	11,198	0.086	3,901,109
	1951³	38.83	11,335	0.081	2,996,115

¹ For the month of March of the fiscal year indicated.

² Based on population estimate for pre-ceding June.

³ Nine months ended Dec. 31; the figures refer to the average pension in December, the number of pensioners in December, the population estimate for June 1950 and the federal contribution during the nine months ended Dec. 31, 1951.

⁴ A monthly pension of \$40 was paid to the one blind pensioner in the Northwest Territories.

Subsection 4.—National Physical Fitness Program

A program of physical fitness and recreation for Canada was introduced with the proclamation on Oct. 1, 1943, of the National Physical Fitness Act. A National Council was established to promote the well-being of the people of Canada through physical fitness and recreational activities. The Council, set up on Feb. 15, 1944, is an executive body appointed by the Governor General in Council, which meets twice each year. In some provinces, provincial councils function as advisory bodies to the provincial government.

The Council has sponsored and initiated a number of projects of significance. National Fitness Scholarships are awarded annually to give material assistance to professionally qualified Canadians with three years' successful experience who desire to improve their professional services. The Council has convened a number of National Conferences including the First National Conference on Undergraduate Professional Preparation and the First National Conference on Employee Recreation. The Canadian Aquatic Standards were developed out of such a conference and the Canadian Sports Advisory Council was formed as a result of conferences of national sports governing bodies called by the National Council on Physical Fitness.

Further, a National Achievement Award has been initiated to honour those who have made outstanding contributions in their fields of endeavour. In 1950 the first national Survey of Municipal Recreation was carried out on a sampling basis by the Council with the assistance and co-operation of the Federation of Mayors and Municipalities and the Parks and Recreation Association. The Council also operates a preview visual-aids library service.

The Act is administered by the Department of National Health and Welfare with the Physical Fitness Division acting as a clearing-house among the provinces for the latest information on fitness, recreation, community centres, physical education, athletics, sports and games, theatre arts and related activities. The Division also acts as a liaison office with national associations and comparable organizations in other countries.

The Federal Government makes available to the provinces on a per capita basis an amount not exceeding \$232,000 annually for the promotion of physical fitness and recreational programs. Financial assistance is given only to those provinces that have signed specific agreements with the Federal Government and to the extent to which they match it dollar for dollar up to the maximum available. At the beginning of 1952, eight provinces and the Northwest Territories were participating in the program.

10.—Grants Available under the National Physical Fitness Act

Province	Annual Grant Available	Expiry Date of Agreement	Province or Territory	Annual Grant Available	Expiry Date of Agreement
	\$			\$	
Newfoundland.....	5,985	¹	Manitoba.....	12,860	Mar. 31, 1953
Prince Edward Island.....	1,630	Mar. 31, 1952 ²	Saskatchewan.....	13,774	Dec. 31, 1953
Nova Scotia.....	10,641	Mar. 31, 1953	Alberta.....	15,558	Mar. 31, 1953
New Brunswick.....	8,540	Mar. 31, 1953	British Columbia.....	19,296	Mar. 31, 1953
Quebec.....	67,163	¹	Northwest Territories...	265	Mar. 31, 1953
Ontario.....	76,136	Mar. 31, 1953	Yukon Territory.....	151	¹

¹ No agreement.

² At time of printing (July 1952), renewal was in process.

Subsection 5.—Training Programs

Under the Vocational Training Co-ordination Act of 1942 as amended, the Federal Department of Labour, in co-operation with the Provincial Governments, carries on various training projects. Details of these schemes will be found in Chapter XVIII.

Section 3.—Provincial Programs

Subsection 1.—Mothers' Allowances

All provinces have statutory provision for allowances to enable certain needy mothers to remain at home to care for their dependent children. The total cost of this assistance is paid from provincial funds except in Alberta where a portion of each allowance is charged to the municipality of residence.

Subject to the conditions of eligibility which vary from province to province, the allowances are payable to applicants who are widowed or whose husbands are mentally incapacitated and, except in Alberta, to those whose husbands are physically disabled and unable to support their families. They are also payable, except in Nova Scotia, to deserted wives who meet specified conditions; in several provinces to mothers who have been granted a divorce or legal separation and in some to unmarried mothers. Adoptive mothers and foster mothers are also eligible under certain circumstances. The child or children must be under 16 years of age except in Manitoba where the age limit is 15 years. Provision is made in most provinces to extend payment for a specified period if the child is attending school and five provinces continue to pay allowances on behalf of physically and mentally handicapped children for from two to five years.

In all provinces applicants must satisfy conditions of need and residence but both the amount of outside income and resources allowed and the length of residence required prior to application vary considerably, the latter, for example, from one year in Saskatchewan, Ontario and Newfoundland to five years in Quebec. All provinces require that the applicant be resident at the time of application and that the child or children live with the recipient, and most provinces require that they continue to live in the province while in receipt of an allowance. Nationality is a condition of eligibility in six provinces. The applicant must be a British subject, the wife or widow of a British subject or her child must be a British subject, except in Quebec and New Brunswick, where Canadian citizenship is required.

In each province the Act is administered by public welfare authorities, in most provinces through a Mothers' Allowances Board or Commission which either makes the final decision regarding eligibility and the amount of allowance granted or acts in an advisory capacity. In some provinces local advisory committees are also appointed. Rates of benefit as of January 1952 are given in the following paragraph.

In *Newfoundland*, the maximum allowance for a mother and one child is \$25 a month, with \$5 for each additional child and for a disabled father at home; the maximum for a family is \$50 a month, with supplementary assistance of up to \$20 monthly if necessary for proper care and maintenance. In *Prince Edward Island* a mother with one child may receive up to \$25 a month, with up to \$5 for each additional child; the family maximum is \$50 monthly. In *Nova Scotia* a monthly maximum of \$80 for a family is fixed by Statute; the amount payable to a mother and one child is determined by family need. In *New Brunswick* the family maximum is \$60 a month, with \$27·50 for a mother and one child and \$7·50 for each additional child. Where necessary, an additional \$7·50 may be granted for rent if it is needed and if the allowance is below the family maximum. The maximum allowance in *Quebec* for a mother and one child is \$30 in a district where the population is under 5,000 and \$35 where it is 5,000 or over. An additional \$1 per month is paid for each of the second, third, fourth and fifth children, \$2 for the sixth and seventh, and \$3 for the eighth and subsequent children. An extra \$5 is allowed when the mother is unable to work or when a disabled father is living at home. *Ontario* pays a maximum of \$50 a month for a mother and one child with \$10 for each additional child and for a disabled father at home. A foster mother with one child may receive up to \$24 per month, with two children up to \$48, with \$10 for each additional child. The allowance may be increased up to \$20 a month where need is shown and winter fuel allowance is also paid according to need. The maximum monthly allowance in *Manitoba* for a mother and one child is \$51 per month. An additional \$10 is paid for a child aged one to six years, \$13 for a child seven to 11 years, and \$15 for a child 12 to 14 years; \$17·25 is paid for a disabled father in the home. The family maximum is \$150 plus winter fuel for seven months, with supplementary assistance of up to \$25 in special circumstances. In *Saskatchewan* the maximum allowance for a family is \$75 a month, with \$25 being paid for a mother and one child, \$10 for a second child, \$5 for each subsequent child and \$10 for a disabled father at home. Supplementary assistance under the social aid program may be granted by the local municipality and the costs are shared equally by the Province and the municipality. The allowance in *Alberta* may not exceed \$50 per month for a mother with one child, with \$20 for the second, \$15 for the third and \$10 for each subsequent child. A maximum of \$145 is set for a family with nine or more children. Supplementary aid in the form of public assistance may be granted, where necessary, by the municipality of residence, with the Province reimbursing 60 p.c. of the cost. In *British Columbia* the maximum monthly mothers' allowance is \$42·50 for a mother with one dependent child, and \$7·50 for each additional child and for a disabled father living at home. Supplementation from social allowance funds brings the actual maximum monthly payments to \$60 per month for a mother and one child and \$9·50 for each additional child and for a disabled father living at home. Extra expenditures may be met through social allowance funds, and a nutrition allowance is available for tubercular patients and their families.

11.—Mothers' Allowances, by Provinces, as at Mar. 31, 1948-51¹

Province and Year	Families Assisted	Children Assisted	Benefits Paid ¹	Province and Year	Families Assisted	Children Assisted	Benefits Paid ¹
No.	No.	\$	No.	No.	\$		
Newfoundland—				Ontario—concl.			
1951.....	3,129	6,417	1,112,976 ²	1950.....	7,304	15,581	5,346,016
P.E. Island—				1951.....	7,382	15,885	5,546,054
1950.....	170	468	26,839 ³	Manitoba—			
1951.....	230	857	52,120	1948.....	639	1,672	383,682
Nova Scotia—				1949.....	701	1,804	536,280
1948.....	1,562	4,374	1,005,112 ⁴	1950.....	786	2,073	606,009
1949.....	1,725	5,007	1,119,141 ⁴	1951.....	880	2,305	679,854
1950.....	1,918	5,754	1,376,631 ⁴	Saskatchewan—			
1951.....	2,043	6,124	1,386,996 ⁴	1948.....	2,508	5,890	1,026,112
New Brunswick—				1949.....	2,555	5,984	1,068,598
1948.....	1,492	4,002	680,551 ⁵	1950.....	2,610	6,024	1,083,188
1949.....	1,611	4,431	759,855 ⁵	1951.....	2,690	6,335	1,106,506
1950.....	1,788	5,002	844,242 ⁵	Alberta—			
1951.....	1,814	5,130	854,027 ⁵	1948.....	1,393	3,073	634,753
Quebec—				1949.....	1,392	3,032	650,692
1948.....	12,277	34,375	4,834,066	1950.....	1,462	3,110	792,274
1949.....	13,220	37,016	5,239,327	1951.....	1,503	3,191	836,469
1950.....	13,591	39,413	5,454,980	British Columbia—			
1951.....	13,817	40,070	5,623,847	1948.....	751	1,608	441,967
Ontario—				1949.....	681	1,445	389,347
1948.....	6,300	15,280	3,484,808	1950.....	643	1,372	366,588 ⁶
1949.....	6,815	14,388	4,535,343	1951.....	569	1,206	332,494 ⁶

¹ Year ended Mar. 31, unless otherwise indicated.

payments were retroactive to Feb. 1, 1950.

² Fourteen months ended Mar. 31; initial³ Ten months ended Mar. 31; program became effective

June 1949.

⁴ Year ended Nov. 30.⁵ Year ended Oct. 31.⁶ Not including \$71,353

and \$64,055 paid as supplementation from social allowances funds in 1950 and 1951, respectively.

Subsection 2.—Welfare Services

The care and protection of neglected and dependent children, care of the aged, social assistance or relief, and other special services outlined in the following summary are governed by provincial legislation, although in many areas responsibility for services rests with municipal or voluntary organizations. While the programs and the methods of financing vary considerably, most provinces share the costs of some or all of the municipal services in organized areas and assume the total cost in unorganized territories. The medical services available to social assistance recipients are described at pp. 232-240. Mothers' allowances are dealt with separately at pp. 269-271, old age assistance at pp. 262-263, and allowances for the blind at pp. 265-267.

Newfoundland.—Provincial welfare services are administered by the Department of Public Welfare through a number of regional welfare offices.

Child Care and Protection.—Child welfare has developed largely as a public service and is administered by the Child Welfare Division. Neglected children, made wards of the Director, are placed in foster or adoptive homes or in institutions. The Department pays for the maintenance of wards, grants subsidies for children admitted to orphanages administered by religious organizations, and contributes towards the cost of educating blind and deaf-mute children in institutions at Halifax, N.S., and Montreal, Que. The Division operates an Infants' Home providing short-term care and, for delinquent children, maintains a Boys' Home and Training School and a Girls' Home and Training School. The Director of Child Welfare is Judge of the Juvenile Court.

Care of the Aged.—The Province maintains a Home for the Aged and Infirm at St. John's and also pays a per diem rate for needy old people in the Salvation Army Home and in approved boarding homes.

Social Assistance.—Under the Dependents' Allowances Act, the Province grants assistance to needy unemployables not eligible for other forms of statutory assistance. Aid for certain needy able-bodied persons is provided under the Health and Public Welfare Act.

Prince Edward Island.—The Department of Health and Welfare is responsible for the administration of provincial welfare services.

Child Care and Protection.—Under the Children's Protection Act, neglected or delinquent children may be placed under the guardianship of the Director of Child Welfare or an approved child welfare agency. The children are placed in foster or adoptive homes, boarding homes or children's institutions under the inspection of the Director. Provincial grants are made to child welfare agencies and to the two private orphanages, one Protestant and one Roman Catholic. Juvenile Courts are under the Attorney General's Department.

Care of the Aged.—The aged and infirm are cared for in the Falconwood Mental Hospital and two provincial infirmaries.

Social Assistance.—The Department provides direct social assistance in rural areas and, by agreement, assumes 50 p.c. of the cost of assistance granted by the City of Charlottetown and the incorporated towns and villages. The Department also operates a province-wide program of financial aid to families where the breadwinner is suffering from tuberculosis and is unable to support the family.

Nova Scotia.—Provincial welfare services are administered by the Department of Public Welfare through a number of regional offices.

Child Care and Protection.—The Child and Family Welfare Branch administers the child protection legislation including the inspection of institutions and the licensing of foster and maternity homes. Neglected children may be made wards of the Director of Child Welfare or of approved Children's Aid Societies. Each Society receives annually a provincial grant of up to \$2,000; a sum equal to 25 p.c. of funds received through private campaigns or from municipalities for general operating expenses; and an additional grant of not less than \$1,000, the maximum determined on a per capita basis. The Province and municipality of residence contribute towards the maintenance of each ward placed in a foster home or institution, unless a court order for support is made against the parents.

The Branch operates the Nova Scotia Training School for mentally defective children and the Nova Scotia School for Boys for juvenile delinquents. It is also responsible for the operation of the six Juvenile Courts and the supervision of their probation staff. The municipality of residence is responsible for the maintenance of children in reformatories although the Province may contribute also if the reformatory complies with specified standards.

Care of the Aged.—The aged are cared for in municipal or county homes, in homes operated by religious or private organizations and in private boarding homes where the municipality of settlement may contribute to the cost of maintenance. Homes for the aged are subject to provincial inspection, but do not receive direct assistance from the Province.

Social Assistance.—Relief to unemployables is a local responsibility.

New Brunswick.—The Department of Health and Social Services administers provincial welfare legislation.

Child Care and Protection.—Responsibility for protection and placement services is largely delegated to Children's Aid Societies throughout the Province. Guardianship of a neglected child may be vested in a Society, the Director of Child Welfare or in the Court. Orphanages are operated by religious, private or, in some cases, municipal organizations. With a few exceptions, boarding homes must be licensed and are subject to the provincial inspection required for all child-caring institutions. The Province and the municipality of residence each contributes towards the maintenance of wards committed to an institution, and the Province also reimburses municipalities for one-half of the cost of maintaining wards placed in foster homes, up to a prescribed maximum. The Department may place blind or deaf-mute children in special schools at Halifax, N.S. Juvenile Courts are under the Attorney-General's Department and delinquent boys may be placed in the Provincial Industrial School for Boys which reports to the Minister of Health and Social Services.

Care of the Aged.—Homes for the aged are operated under municipal, religious, fraternal or private auspices and are subject to provincial inspection but receive no direct financial support from the Province.

Social Assistance.—Relief to unemployables is a local responsibility.

Quebec.—Major responsibility for the administration of provincial welfare measures is shared by the Department of Health and the Department of Social Welfare and Youth. The former administers the Quebec Public Charities Act which embodies the Government's policy of granting subsidies to religious and private institutions where they exist rather than creating public services. Grants are made to these institutions on a per diem basis, with the Province, the municipality of residence, and the institution sharing equally the cost of maintenance of indigent persons admitted for care. The Department of Social Welfare and Youth is responsible for preventive and rehabilitative work among neglected and dependent children and for grants to recreation agencies, in addition to certain important educational functions. Social Welfare Courts are, however, under the jurisdiction of the Department of the Attorney-General.

Child Care and Protection.—Needy or abandoned children are generally cared for in institutions such as orphanages, nurseries and other homes, assisted under the Quebec Public Charities Act, although there is an increasing use of foster homes. However, children who are found by a Social Welfare Court or other Court to be particularly exposed to moral or physical dangers may be admitted to recognized Youth Protection Schools under the Youth Protection Schools Act, 1950. The cost of maintenance in these schools is shared equally by the Province and municipalities of residence. The Social Welfare Courts, which in 1950 replaced Juvenile Courts, have statutory responsibility in connection with child and youth protection and certain other provincial programs and also serve as Family Courts. Children who have been exposed to tuberculosis but who have not been infected are placed with rural families under the supervision of the Department of Health in co-operation with local doctors and clergy.

Care of the Aged.—Institutional care for indigent old people is provided under the Quebec Public Charities Act.

Social Assistance.—Financial aid is not provided to needy families in Quebec but institutional care for indigents is available under the Quebec Public Charities Act. The Department of Colonization operates a program whereby families in need are settled on the land in newly opened districts and granted financial aid until they become self-supporting.

Ontario.—Provincial welfare services are administered by the Department of Public Welfare. The Province may pay 50 p.c. of the administrative costs of welfare units established by municipalities or districts to co-ordinate services.

Child Care and Protection.—Child protection legislation is administered by the Child Welfare Division which supervises the local Children's Aid Societies to which responsibility for the care and protection of neglected and dependent children is delegated. Annual provincial grants to these Societies include token grants based upon the quality and level of services provided, in addition to grants equal to 25 p.c. of the amounts raised through voluntary effort. The Province also reimburses the municipalities of residence in amounts not exceeding 25 p.c. of the net cost of maintaining children made wards of Children's Aid Societies. Children's institutions and day nurseries are supervised by the Child Welfare Division and must be licensed. The Province makes small per diem grants to non-profit-making charitable institutions and pays one-half of the operating and maintenance costs of municipal day nurseries. Juvenile Courts are under the Attorney-General's Department, while training schools for juvenile offenders are operated by the Department of Reform Institutions.

Care of the Aged.—Municipalities are required by law to provide institutional care for the aged, with the Province contributing 50 p.c. of the net operating and maintenance costs and 50 p.c. of the cost of approved new construction. Both public and private institutions are subject to provincial regulations and inspection and, under certain circumstances, charitable institutions may receive a small per diem grant for each needy person maintained.

Social Assistance.—Under the Unemployment Relief Act the Province reimburses municipalities, up to a prescribed maximum, for 50 p.c. of their expenditures on relief to needy unemployables and on incapacitation allowances and rehabilitative measures for single, needy, handicapped residents. In unorganized areas the program is administered and financed by the Department. The Soldiers' Aid Commission extends emergency assistance and advice to former service men and their families.

Manitoba.—The Public Welfare Division of the Department of Health and Public Welfare is generally responsible for provincial welfare services.

Child Care and Protection.—Preventive and protective services for children are provided by four non-denominational Children's Aid Societies in their respective territories. The Public Welfare Division supervises their programs, provides services in other areas and supervises children's institutions. Neglected children may be made wards of the Director of Child Welfare or of a Children's Aid Society. Municipalities are responsible for the maintenance of wards but the Province reimburses them for a portion of these costs from the \$300,000 annual fund distributed among the municipalities in proportion to their relief and child welfare expenditures. Under agreements between the Province and the Children's Aid Societies, payment of annual provincial grants is conditional on the provision of a basic level of service

and the collection of equivalent voluntary contributions; payments are made in accordance with a formula based on the number and cost of social workers per 100,000 population in a representative area where the Division directly administers child-welfare services. The Division provides foster-home care and supervision for mental defectives placed in the custody of the Director of Child Welfare and, with the Division of Psychiatry, operates a home for mentally defective girls. The Attorney-General's Department is responsible for Juvenile Courts and operates a boys' home and a girls' home for delinquents.

Care of the Aged.—Institutions and nursing homes for the aged and infirm are supervised and licensed by the Department under public health legislation.

Social Assistance.—Municipalities are responsible for assistance to needy residents, but these expenses, as well as ward maintenance costs, are partly reimbursed by the Province from the \$300,000 annual social assistance fund which is allocated on a pro-rata basis. The Province is responsible for aid to persons without municipal residence as well as for general assistance in unorganized territory.

Saskatchewan.—The administration of provincial welfare services, under the Department of Social Welfare and Rehabilitation, was reorganized in 1952 to provide for more effective co-ordination and supervision of programs. A single Public Welfare Branch replaced the former Child Welfare, Public Assistance and Welfare Services Branches and three new Branches were set up to deal with research and planning, nursing homes and housing, and with rehabilitation.

Child Care and Protection.—The Department provides welfare services for children throughout most of the Province and supervises the program of the Children's Aid Society at Saskatoon to which certain responsibilities are delegated. Children found to be neglected are, by Court Order, made wards of the Minister and are placed in foster homes, adoptive homes or institutions. A portion of the maintenance costs of wards, except of children born out of wedlock, is paid by the municipality of residence. The Branch operates three institutions for the temporary care of wards.

The Corrections Branch of the Department is responsible for both adult and juvenile correctional services, provides probation and parole services for juvenile delinquents and administers the Saskatchewan Boys' School. Juvenile Courts, reorganized in 1950, consist of an Adjudication Division, under a judge, which determines whether a delinquency has been committed, and a Disposition Division which determines treatment. The latter is composed of a magistrate and the provincial youth guidance authority which also has wide supervisory powers over treatment measures.

Care of the Aged.—The Department operates two homes for the aged and licenses and supervises all privately operated homes. Maintenance, where necessary, may be arranged under the social aid program. The Nursing Homes and Housing Branch is also responsible for planning to meet future needs of the aged and for co-operating with other governmental organizations in the fields of institutional care and housing for the aged.

Social Assistance and Special Services.—The costs of assistance to needy persons are shared equally by the municipalities and the Department, the Province paying the entire cost for transients and for persons in unorganized areas. The Rehabilitation Branch provides training and placement services for the handicapped; one-half

the cost of this training is borne by the Province and one-half by the municipality of residence. It is also responsible for the rehabilitation of minority groups and operates a farm where the Metis—persons of mixed Indian and white stock who do not qualify under the Indian Act—are instructed in modern methods of farming while being paid for their work. Two schools are conducted for Metis children.

Alberta.—The Department of Public Welfare is responsible for the administration of provincial welfare measures.

Child Care and Protection.—The care of children who are made wards of the Government is under the control of the Child Welfare Commission. These children may be placed in foster homes, boarding homes or institutions. Financial responsibility for wards rests with the municipalities of residence but the Province may make grants of up to 60 p.c. of the maintenance costs. The Home Investigating Committee is responsible for the inspection of all homes in which children are given care. Effective July 1, 1952, administration of juvenile delinquency was transferred from the Department of Public Welfare to the Attorney-General's Department.

Care of the Aged.—The Province reimburses municipalities for 50 p.c. of costs incurred for the maintenance of needy, aged or infirm persons in municipally licensed homes. The grants may not exceed a prescribed maximum and are contingent upon the maintenance of certain standards.

Social Assistance.—Municipalities are responsible for assistance to indigent residents but the Province is authorized to make grants to the municipalities of up to 60 p.c. of these assistance costs. The Province pays the total cost of assistance granted to transients and to residents of unorganized districts. Families may be assisted through resettlement on suitable farm lands. The Single Men's Division maintains four hostels to care for unemployable, single, homeless men without municipal domicile. Single ex-service men are cared for at Calgary and Edmonton without being placed in institutions. The Province has also set aside Metis Settlement Areas where settlers have exclusive fishing, hunting and trapping rights, and are encouraged to engage in lumbering, agriculture and stock-raising. Educational services are provided and government-operated stores sell goods at cost price.

British Columbia.—The administration of provincial welfare services by the Social Welfare Branch of the Department of Health and Welfare is decentralized through district offices in five regions covering the whole Province. Generalized field service is provided by provincial social workers in the area to which each is assigned. The staff of the Social Welfare Branch is also responsible for welfare services in a number of programs operated by the Health Branch.

Cities and municipalities of over 10,000 population must have their own social welfare departments to administer the social assistance program and to provide case-work services. The Province pays 50 p.c. of the salaries of municipal social workers or, where more than one is needed, matches the municipal appointees worker for worker. Smaller municipalities may either have their own or amalgamated social welfare departments or may pay for the services of the Social Welfare Branch.

Child Care and Protection.—The Child Welfare Division administers legislation governing the protection of children and provides direct services except at Vancouver and Victoria where it supervises the Children's Aid Societies to which responsibility is largely delegated. Municipalities are responsible for the costs of maintaining

wards, with the Province reimbursing them for 80 p.c. of these expenditures and paying the entire cost for children in unorganized areas. Children's institutions, boarding homes and day nurseries are licensed and supervised. The Division administers the boys' and girls' industrial schools for delinquent children. Family case-work and rehabilitative supervision of boys and girls released from the schools are carried on in co-operation with the Psychiatric Division, the probation service of the Juvenile Courts, which are under the Attorney-General's Department, and with voluntary agencies.

Care of the Aged.—The Province operates the Provincial Home which provides care for aged men, contributes 33 p.c. of the capital cost of construction of municipal homes, and licenses and supervises municipal homes, private institutions and boarding homes. The maintenance of needy residents, where necessary, is shared with the municipalities on an 80-20 basis.

Social Assistance.—The social assistance program administered by the Family Division includes allowances to needy individuals or families, counselling services, occupational training, and boarding and foster-home care. The Province reimburses the municipalities 80 p.c. of the costs of basic social assistance payments to indigent residents and pays 50 p.c. of the increased allowances authorized in 1951.

Subsection 3.—Workmen's Compensation

In all ten provinces, legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment, or by a specified industrial disease. A summary of provincial legislation is given in Chapter XVIII.

Subsection 4.—Care of the Dependent and the Handicapped

Detailed statistics of charitable and benevolent institutions are made available every five years. The results of the 1951 Census in this field, published in mid-summer 1952, may be secured from the Dominion Statistician. Figures for 1946 are given in summary form in the Year Book 1950, p. 288.

PART III.—NATIONAL VOLUNTARY HEALTH AND WELFARE ACTIVITIES

A number of national voluntary agencies carry on important work in the provision of health and welfare services, planning and education. These agencies, some of which are described below, supplement the services of the federal and provincial authorities in many fields and play a leading role in stimulating public awareness of health and welfare needs and in promoting action to meet them.

Canadian Welfare Council.—The Council, established in 1920, is a national association of organizations and individual citizens in partnership to secure comprehensive, well-administered social services of high quality for the Canadian people. It furnishes authoritative information, technical advice and field service in the main areas of social welfare and provides a means of co-operative planning and action by serving as a link between the public and private agencies. Member organizations include community chests and councils, private social agencies, various federal, provincial and municipal departments and other groups and individuals active in the fields of health, welfare and education.

The policies and programs of the Council are determined by its members with the help of a nationally representative elected board of governors. Aided by professional staff, the members work together through divisions of Child Welfare, Family Welfare, Recreation, Public Welfare, Delinquency and Crime, and Community Chests and Councils. Other aspects of social welfare are dealt with by special committees and departments, including the Department of French-speaking Services.

Some subjects to which the Council is giving study are labour, Canadian adoption laws as a step towards improved adoption procedure in all provinces, needs of the aged, public assistance, residence and settlement legislation, rehabilitation of the disabled, health insurance, civil defence, and a large number of surveys on a variety of subjects requested by agencies, communities and provinces. Council publications include the periodicals *Canadian Welfare* and *Bien-être social canadien*, an annual directory of Canadian welfare services, and division bulletins, pamphlets and reports.

Canadian Conference of National Voluntary Health and Welfare Organizations.—The Conference, set up in 1949, provides national health and welfare agencies with a clearing-house and a medium for exchange of experience and for joint study and action with a view to increasing co-operation in matters of common concern.

Canadian Committee of Youth Services.—This Committee, established in June 1949, serves in an advisory capacity to youth groups and provides an opportunity for organizations concerned with youth to meet for discussion of mutual problems.

Canadian National Institute for the Blind.—The Institute, founded in 1918, provides extensive rehabilitative services for blind persons and carries on an active program for the prevention of blindness. Its services include home teaching of touch reading and writing, handicrafts, occupational training and placement, welfare services and financial assistance. It operates factories to afford employment for blind men and women and controls tobacco stands, newsstands and industrial cafeterias managed by the sightless. Field services are provided through over 30 district offices staffed by field workers and teachers, most of whom are blind. The Institute maintains a national library of Braille and recorded literature, operates several residences and gives financial support to recreational clubs for blind persons. In the preventive field, it operates eye clinics, arranges treatment and distributes literature. The Institute is supported by Government grants and voluntary subscriptions.

The Canadian Red Cross Society.—The peacetime program of the Society consists of eight major services. The operation of outpost hospitals and of a blood-transfusion service are important projects in nearly all provincial divisions. Nutrition and visiting homemaker's services, and instruction in swimming and water safety are carried on in most branch areas. In addition, relief is supplied in times of national and international disaster, craft training and recreational centres are operated for hospitalized war veterans, and a national inquiry bureau traces persons for the purpose of reuniting families and friends.

The Canadian Junior Red Cross promotes health and good citizenship in schoolroom branches across Canada. As part of its program, the Junior Red Cross Crippled Children's Fund is maintained to assist in providing treatment for handicapped children.

The Victorian Order of Nurses for Canada.—The Victorian Order of Nurses is a voluntary public health agency, national in scope and having as its primary object the care of the sick in their own homes. Care is given under medical direction by visiting nurses to medical, surgical and maternity patients, a large percentage of whom would otherwise be without skilled nursing services. Patients are expected to pay the cost of the home visits, but fees are scaled according to family income and service is never refused because of inability to pay.

Part-time nursing service is given in industrial plants where the number of employees does not warrant full-time employment of a nurse. In smaller centres where the Order provides the only public health nurse, the program is usually enlarged to include school nursing, assistance at immunization clinics and child health centres and other public health services.

The Health League of Canada.—The Health League of Canada is a voluntary association devoted to health education. Through the media of press, radio, posters, pamphlets, motion pictures and the public platform, the League keeps the public informed concerning the health value of milk pasteurization, immunization procedures for preventable diseases, proper nutritional habits, sanitary work practices by public food-handlers and organized health programs for industrial workers. The League supplements its year-round program with the annual sponsoring of National Health and National Immunization Weeks.

The Order of St. John.—The primary purpose of the Order is to teach first aid, home nursing, child welfare, sanitation, hygiene and kindred subjects to citizens of Canada irrespective of age, race and creed, and to provide trained and organized personnel to help in time of disaster or national emergency. The Canadian branch was organized in 1895 and, since that time, more than 1,250,000 persons have been trained and have passed examinations in various subjects. The Order has its headquarters and national offices at Ottawa, branches in every province and local centres in hundreds of cities, towns and villages throughout Canada. There are two subsidiary branches, the St. John Ambulance Association and the St. John Ambulance Brigade, the first devoted to teaching and the second to rendering voluntary public assistance as required. A blood-grouping program was started early in 1943 so that compatible donors might be obtained with the least possible delay in emergencies.

The Canadian Arthritis and Rheumatism Society.—The Canadian Arthritis and Rheumatism Society was incorporated in 1948 for the purpose of reducing morbidity and mortality from arthritic and rheumatic diseases. Its objectives include the raising of funds to support research, the education of professional personnel and of the general public, and the promotion and organization of treatment facilities. A Medical Advisory Board composed of leading physicians, surgeons and scientists advises on the research program, professional education and public relations.

Divisions of the Society are operated in British Columbia, Saskatchewan, Manitoba, Ontario and Quebec. The British Columbia Division conducts an out-patient diagnostic service, in-patient care and a mobile unit; the diagnostic service is supplied through arthritis clinics and a mobile unit which brings treatment facilities to those unable to leave home.

The National Cancer Institute of Canada.—The National Cancer Institute was incorporated in 1947 for the purpose of correlating cancer-control activity in Canada and of establishing and maintaining cancer research. Its program includes the sponsorship of research projects through grants-in-aid and fellowships, professional education, the co-ordination of provincial cancer-control programs and the operation of the Canadian Tumour Registry at Ottawa. The Canadian Tumour Registry utilizes the technical facilities of the Laboratory of Hygiene of the Department of National Health and Welfare to diagnose unusual tumours and to act as a central tumour library. The Institute has advisory committees on radiation therapy and on records and statistics.

The Canadian Cancer Society.—This Society, incorporated in 1938, works under a joint director with, and acts as a fund-raising body for, the National Cancer Institute. The Society has branch divisions in nine provinces and these provide services particularly in the fields of lay education and welfare. The services vary from province to province but include assistance from social-service workers and the provision of free cancer dressings and medicines, nursing care, transportation and living accommodation.

The Canadian Tuberculosis Association.—This Association, which was founded in 1900, is active in fund-raising for the purpose of educating the general public in tuberculosis prevention and of sponsoring services for the tuberculous. Services are provided through provincial branches. The Saskatchewan branch operates the provincial tuberculosis-control program in that Province and in several provinces services include assistance in the diagnosis, treatment and rehabilitation of the tuberculous through the operation of mobile X-ray units, the employment of teachers of vocational and academic subjects, and generally through co-operation in tuberculosis-control programs of provincial health departments.

The Canadian Mental Health Association.—The Canadian Mental Health Association operated between the years 1918 and 1950 as the National Committee for Mental Hygiene. The Committee worked for the conservation of mental health; it has studied mental health conditions in Canada and has sponsored mental health projects such as a teacher-training course designed to provide liaison officers between the school and the mental health clinics, and a psychiatric centre for work with social agencies in the community. The Association is continuing and expanding the interests of the Committee through the formation of provincial branches to make consultative and educational services more readily available to the whole population.

Other National Health Organizations.—Additional voluntary agencies are engaged in a variety of health activities including financial support and operation of educational programs, research and training, and the provision of treatment. These activities may be directed towards the general public or towards specific categories of ill or disabled persons, such as the paraplegics. Some organizations, such as those dealing with the blind and the deaf, are interested in the welfare as well as the health problems of the groups served. Organizations of professional medical and related personnel, in particular of public health personnel, assist in the development of agencies and in guiding their activities.

PART IV.—VETERANS HEALTH AND WELFARE SERVICES*

Section 1.—The Department of Veterans Affairs

The great majority of veterans have now been assimilated into civilian life and the work of the Department of Veterans Affairs has settled into a well-defined pattern, its major functions being concerned with medical treatment, payment of pensions and allowances, welfare work and land settlement. The Department maintains 18 District Offices and two Sub-district Offices in Canada as well as District Offices at London, England. The administration of the Veterans' Land Act also requires the maintenance of District and Regional Offices in locations as accessible as possible to veterans. Travelling welfare officers operate from these Offices.

The basis of administration of the Department of Veterans Affairs, established in 1944, is dealt with in the Year Book 1946, pp. 1053-1054. The work of the Department as it developed year by year is outlined in subsequent editions and is brought up to Mar. 31, 1952, in the following sections.

Section 2.—Medical, Dental and Prosthetic Services

Medical Services.—It is the policy of the Department to give the veterans the most modern treatment possible. Wherever a Departmental hospital is situated in proximity to a medical school, close co-operation is maintained between the two. Veterans hospitals are actively engaged in under-graduate and post-graduate teaching, and members of the medical faculties are employed in the hospitals with other specialists. Ten hospitals have received approval by the Royal College of Physicians and Surgeons of Canada for advanced post-graduate teaching in internal medicine and general surgery. Six of these are also approved for advanced post-graduate teaching in specialties. The majority of the consultant staffs at Departmental hospitals are employed on a part-time basis and are also generally engaged in medical teaching.

Professional and other members of the university staffs are employed as consultants and advisers in the same way as medical consultants. Thus, the Department receives expert advice in nursing, pathology, medical social services and other medical sciences.

Special centres for the investigation and treatment of arthritis, paraplegia, tuberculosis, etc., are active in the larger hospitals. Where Departmental facilities are not available, veterans with service-related disabilities receive treatment and hospitalization through the doctor of their choice.

During the year ended Mar. 31, 1952, 105 research projects were submitted to the Advisory Board for Medical Research and Education and, of these, 58 were continuing and 47 were new. These projects included clinical research of the effects of ACTH and Cortisone on various diseases, a follow-up study on Hong Kong prisoners of war, a study on Canadian veterans of World War II and a five-year study of gunshot wounds of the head. In addition, studies were in progress on paraplegia, mental diseases, chronic bronchitis and circulatory diseases. Research information is constantly being exchanged with authorities in the United Kingdom and the United States.

* Contributed by the various Branches of the Department of Veterans Affairs through G. G. Yates, Chief of Information.

At the end of 1951, the Department had in operation 9,785 beds in 19 institutions. Of these, 12 were active treatment hospitals, two were health and occupational centres for convalescents, four were veterans homes and one was a special institution. Statistics of accommodation and movement of patients in these hospitals are given at pp. 250-251.

Dental Services.—The number of dental treatments given during the years ended Mar. 31, 1941-52 were:—

<i>Year ended Mar. 31—</i>	<i>Treatments</i>	<i>Year ended Mar. 31—</i>	<i>Treatments</i>
	No.		No.
1941.....	99,590	1947.....	2,700,052
1942.....	73,113	1948.....	1,191,218
1943.....	102,554	1949.....	218,173
1944.....	66,562	1950.....	158,149
1945.....	249,170	1951.....	128,206
1946.....	509,703	1952.....	103,242

Prosthetic Services.—The Prosthetic Services Branch of the Department of Veterans Affairs supplies, by manufacture or procurement, all orthopaedic and surgical appliances prescribed by the Treatment Services Branch. The maintenance and renewal of such prostheses for all eligible cases is also the concern of the Branch. A large modern centre at Sunnybrook Hospital, Toronto, together with 11 district centres in the principal cities, extends the manufacturing, maintenance and fitting service across the country. This system ensures a standardization of parts of major prostheses, a control of quality of supplies and availability of service at all times.

A Research and Development Section at Toronto is constantly at work on improvements and, in co-operation with the manufacturing services, conducts the field-testing of new developments. Close contact is maintained with the National Research Council in Canada and with research committees in the United States and the United Kingdom.

During the year ended Mar. 31, 1952, 60,053 persons were supplied with appliances or accessories, compared with 55,854 during the previous fiscal year. Total issues during these two years numbered 113,530 and 104,936, respectively.

Vetcraft Shops.—The Department operates Vetcraft Shops at Toronto and Montreal as sheltered employment for disabled veterans. These shops manufacture poppy emblems and wreaths for sale by the Canadian Legion on Remembrance Day. An average of 60 veterans are employed. Production value was approximately \$235,600 for the 1951 campaign.

Section 3.—Pensions and Allowances

The Canadian Pension Commission.—The Commission administers the Pension Act and the Civilian War Pensions and Allowances Act and reports to Parliament through the Minister of the Department of Veterans Affairs. The Head Office of the Commission is at Ottawa and representatives, known as Pension Medical Examiners, are located at each District Office of the Department.

It is the responsibility of the Commission to adjudicate upon claims for injury or disease resulting in disability or death during service with the Naval, Army or Air Forces of Canada, and to consider claims for the supplementation of awards to Canadians who suffered disability or death while serving in the Armed Forces of the United Kingdom or its allies in World War I or World War II.

The Pension Act.—Under the Pension Act (R.S.C. 1927, c. 157 and amendments):—

- (1) Pensions payable to veterans of the Fenian Raid and Northwest Rebellion under authority of Orders in Council are supplemented to the Canadian scale.
- (2) Pensions payable by Great Britain on account of Canadians who served in the South African War are supplemented to the Canadian scale.
- (3) Pensions for peacetime service prior to World War I payable under Orders in Council are supplemented to the Canadian scale.
- (4) Pensions are paid to Veterans of World Wars I and II for injury or disease or the aggravation thereof resulting in disability or death attributable to or incurred during service.
- (5) Pensions for peacetime service between World Wars I and II and subsequent thereto are paid when the injury or disease or aggravation thereof resulting in disability or death arose out of or was directly connected with service.
- (6) Special provision is made for the Canadian Army Special Force.

In previous issues of the Year Book information is given regarding the development of Canadian pension legislation and yearly statistics regarding numbers and liability. As at Dec. 31, 1951, pensions in force were as follows:—

<u>Payable</u>	<u>Pensions</u>	<u>Liability</u>
	No.	\$
To dependants.....	33,854	27,195,386
For disability.....	161,085	69,319,818
TOTALS.....	194,939	96,515,204

The basic scale of pensions was increased with effect from Jan. 1, 1952, and it is anticipated that the annual liability will now approximate \$125,000,000. By the 1951 amendments, the pension paid for a total disability to a former member of the Forces of the rank of major and below with a wife and two or more children amounts to a personal pension of \$125 monthly, an additional \$45 for his wife, \$20 for the first child, \$15 for the second, and \$12 for each additional child. If he is helpless and in need of attendance, he is granted a Helplessness Allowance, which might vary from a minimum of \$480 to a maximum of \$1,400 per annum depending on the amount of attendance required. In the case of the blind, where the attendance required is not constant, the helplessness award is \$960 per annum.

A pensioned widow receives \$100 per month, with \$40 for the first child, \$30 for the second and \$24 for each additional child. If she remarries, she is granted a gratuity of twelve months' pension, and pension usually continues for her children. Pension for a boy expires when he reaches the age of 16, and for a girl at 17. However, it may be continued to the age of 21 if the child is making satisfactory progress in a course of education approved by the Commission.

Civilian War Pensions and Allowances Act.—This Act extends pension legislation to a number of civilian groups whose work was closely associated with the World War II war effort, including merchant seamen, auxiliary services personnel, fire fighters who served in the United Kingdom, special constables with the Royal Canadian Mounted Police, overseas welfare workers, etc.

Veterans' Bureau.—The Veterans' Bureau, staffed by Pensions Advocates, most of whom are lawyers, was established in 1930 to assist those seeking war disability or dependant's pension in presenting their claims to the Canadian Pension Commission (*see* Year Book 1947, p. 1142). This service is also given to persons applying for pension under the Civilian War Pensions and Allowances Act. There are District Pensions Advocates in all District Offices of the Department. The service is free of charge and most applications for pension are handled in this way. At Mar. 31, 1952, the Veterans' Bureau had 6,644 active claims in hand.

Section 4.—Rehabilitation of Veterans

The Veterans Welfare Services Branch of the Department of Veterans Affairs is responsible for the administration of benefits available to discharged members of the Forces under the terms of the Veterans' Rehabilitation Act, the War Service Grants Act, and the Veterans Benefit Act of 1951.

The Department renders assistance to veterans and advises them in social problems through the Social Service Division of the Veterans Welfare Services Branch. At the same time, it does not duplicate any service that is already available to a veteran as a citizen. The rehabilitation of women veterans has been conducted along with that of the male veterans and no particular problems have been encountered.

War Service Grants.—The amounts expended as gratuities under the War Service Grants Act up to Mar. 31, 1952, are shown in Table 1.

**1.—Gratuity Payments under the War Service Grants Act, Years Ended
Mar. 31, 1945-52**

Year and Service	Navy	Army	Air Force	Miscellaneous	Total
	\$	\$	\$	\$	\$
1945—					
Forces.....	973,958	14,663,621	3,468,852	—	19,106,431
1945-46—					
Forces.....	27,277,979	121,003,582	64,157,016	—	212,438,577
Canadian Fire Fighters.....	—	—	—	161,760	161,760
Auxiliary Services.....	180	58,646	36,116	—	94,942
1946-47—					
Forces.....	17,766,529	170,658,329	32,949,430	—	221,374,288
Auxiliary Services.....	365	254,616	98,475	—	353,456
1947-48—					
Forces.....	940,778	11,386,313	1,372,651	—	13,699,742
Auxiliary Services.....	—	315,046	Cr. 5,198	—	309,848
1948-49—					
Forces.....	140,907	589,132	226,686	—	956,725
Auxiliary Services.....	—	35,563	—	—	35,563
1949-50—					
Forces.....	37,595	133,117	168,582	—	339,294
Auxiliary Services.....	—	9,483	—	—	9,483
Netherlands.....	—	—	—	91,737	91,737
1950-51—					
Forces.....	21,318	76,348	344,717	—	442,383
1951-52—					
Forces.....	9,708	128,058	124,366	—	262,132
Special Force.....	1,340	18,208	—	—	19,548
Totals.....	47,170,657	319,330,062	102,941,693	253,497	469,695,909

Re-establishment Credits.—To Mar. 31, 1952, 963,395 veterans re-establishment credit accounts had been opened and 718,890 of these accounts had been closed due to authorization having been given for the complete disposal of the credit. In addition to the \$278,356,263 authorized for use for the purposes listed in Table 2, about \$59,307,000 was written off for veterans who had used the alternative benefit of training, or had made application to settle under the Veterans' Land Act. Of the total re-establishment credit issued to Mar. 31, 1952, more than 78 p.c. was used for homes.

The expenditures made to Mar. 31, 1952, resulted from 1,933,424 individual approved applications for use of the credit.

2.—Re-establishment Credits Paid, by Required Purposes, Years Ended Mar. 31, 1951 and 1952, with Cumulative Totals to Mar. 31, 1952

Purpose	Total to Mar. 31, 1950	1951	1952	Total to Mar. 31, 1952
	\$	\$	\$	\$
Homes—				
Purchased under National Housing Act....	2,638,585	361,833	130,439	3,130,857
Purchased other than under National Housing Act.....	28,941,619	1,251,026	750,376	30,943,021
Repairs, etc.....	13,868,102	862,045	481,137	15,211,284
Furniture and equipment.....	149,498,360	10,617,822	5,924,726	166,040,908
Reduction of mortgages.....	4,039,012	135,318	78,822	4,253,152
Totals, Homes.....	198,985,678	13,228,044	7,365,500	219,579,222
Business—				
Purchase of a business.....	3,514,409	68,613	41,302	3,624,324
Working capital.....	22,463,408	740,782	517,834	23,722,024
Tools and equipment.....	21,041,387	1,694,699	972,313	23,708,399
Totals, Business.....	47,019,204	2,504,094	1,531,449	51,054,747
Miscellaneous—				
Insurance, annuities, etc.....	5,919,485	625,723	581,421	7,126,629
Special equipment for training.....	462,095	62,192	44,482	568,769
Clothing.....	—	5,651	21,245	26,896
Totals, Miscellaneous.....	6,381,580	693,566	647,148	7,722,294
Grand Totals.....	252,386,462	16,425,704	9,544,097	278,356,263

Casualty Rehabilitation.—The Casualty Welfare Division, the function of which is to provide vocational guidance, assistance in securing suitable employment and vocational after-care, maintains a register of all those veterans whose disabilities in relation to other factors, such as education, previous employment experience and personality, constitute a serious problem in occupational adjustment.

There were, up to Mar. 31, 1952, 36,788 registrations with this Division of which 7,638 were still active cases. The registration according to the type of disability is shown in the following statement:—

Type of Disability	Active Cases	Closed Cases
	No.	No.
Amputation.....	262	1,940
Other muscular and skeleton system disabilities.....	1,776	9,860
Total and partial loss of hearing or sight.....	357	2,303
Neurological cases.....	268	1,034
Heart and vascular system.....	404	2,976
Respiratory disabilities.....	3,308	6,775
Mental and emotional disabilities.....	324	628
Unclassified.....	939	3,634
TOTALS.....	7,638	29,150

Among the national agencies with which the Department is in continuous liaison in connection with casualty welfare are: the Army, Navy and Air Force Veterans Association; the Canadian Legion, B.E.S.L.; the Canadian National Institute for the Blind; the Canadian Paraplegic Association; the Canadian Red Cross Society; the Canadian Tuberculosis Association; the National Society of the Deaf and Hard of Hearing; and War Amputations of Canada.

During the fiscal year ended Mar. 31, 1952, the total number of registrants increased by over 800 cases but the number of active cases decreased by approximately 1,125. Progress in the rehabilitation of the cases between Mar. 31, 1951, and Mar. 31, 1952, was as follows:—

<i>Status</i>	<i>Mar. 31, 1951</i>	<i>Mar. 31, 1952</i>
	No.	No.
Employed.....	28,850	29,991
Unemployed.....	862	786
Receiving treatment, training or other services.....	4,339	3,997
Rehabilitation not feasible.....	1,660	1,874
Unknown.....	191	140
TOTALS.....	35,902	36,788

Rehabilitation of Older Veterans.—The welfare of the older veteran has become firmly established as an important function of the Department of Veterans Affairs. Continuous educational work conducted in co-operation with the Department of Labour and national organizations has created a general awareness of the importance of maintaining the mature, middle-aged worker in gainful productive employment until he reaches an acknowledged retirement age.

The Department's responsibilities in this regard are not lessening with the advancing age of veterans of World War I. Many veterans of World War II have now reached mature age and thousands more will reach this state every succeeding year.

By enlisting support of veterans organizations and other groups, a national chain of voluntary committees has been developed, each accepting local responsibility in co-operation with the Department and the National Employment Service toward their own unemployed older veterans.

Assistance Fund.—Two welfare surveys conducted by the Welfare Services Branch of the Department in the autumn and winter of 1948-49 showed that approximately 21 p.c. of war veterans allowance recipients living in rural areas and 27 p.c. of those living in urban areas were unable to manage on the current allowance. The Assistance Fund was introduced to supplement the allowance in such cases.

District Assistance Fund Committees are established in each District Office of the Department. The District Committee has the responsibility of investigating and adjudicating on each application. Approved applications are paid from the District Treasury Office, thus making funds available to veterans in need as rapidly as possible.

Vocational and University Training.—The vocational training program, authorized under the Veterans' Rehabilitation Act, is dealt with in Chapter XVIII and the university training for veterans program in Chapter VIII.

Rehabilitation Benefits for Members of the Special Force.—The Veterans Benefit Act, 1951, provides for the extension of rehabilitation benefits to ex-members of the Special Force. Persons who enlisted in the Special Force, served in a theatre of operations and were discharged on strength of the Special Force, are eligible for benefits similar to those provided for veterans of World War II. This also applies to members of the reserve and regular forces who served with the Special Force in a theatre of operations subject to certain conditions and time limits respecting commencement and termination of the service performed with the Special Force.

The Veterans' Land Act.—New settlement under the Veterans' Land Act, designed to assist eligible and qualified veterans to settle on farms, small holdings and commercial fishing properties, continued in 1951-52 at a surprisingly high level, 3,887 new accounts being opened of which 2,600 were for small holdings.

Veterans settled in previous years continued to improve their financial positions and integrate themselves into their respective communities. Their payment record was very good, with the exception of those settled in areas where crop failures were reported, and terminations of unfilled contracts, either voluntary or with the consent of Provincial Advisory Boards, were relatively few in number.

During the year, prices of land and buildings, live stock and equipment continued to rise, resulting in increased emphasis being placed on sound appraisals and supervisory work, particularly on behalf of veterans settled on full-time farms, in order to bridge the gap between the capital available to the veteran and the capital required to-day to set up an economic farm unit.

This supervisory work is carried on continuously with the veterans through personal contact by field staff, by field days, demonstrations, evening meetings and through the dissemination of agricultural information material. In this activity the administration enjoys extensive co-operation from federal and provincial agricultural authorities, experimental farms, schools and colleges, from private organizations and associations, commercial companies and successful farmers.

Supervision activity in connection with small holders stressed the utilization of the land available for enterprises likely to return secondary income, and some outstanding successes in this respect have been reported. These veterans were also encouraged and assisted to maintain or increase the value of their properties by building upkeep and landscaping. Evidence indicates that there is a definite relationship between this supervisory activity and the payment record of the veterans.

Table 3 shows the number of veterans who have qualified for settlement, the number for whom financial assistance has been approved, and the amounts approved in the form of loans and grants to these veterans since the legislation was passed.

3.—Summary of Settlement Status, Loans and Grants under the Veterans' Land Act, 1942, as at Mar. 31, 1952¹

Item	Full-Time Farming	Small Holdings	Commercial Fishing	Provincial Lands	Federal Lands	Total
Qualified for settlement. No.	31,071	37,575	996	5,340	358	75,340
Approved for financial assistance..... No.	24,155	25,895	860	4,279	275	55,464
Amounts approved for land and permanent improvements..... \$	91,630,107	127,164,162	2,482,030	4,060,562	609,463	225,946,324
Amounts approved for stock and equipment. \$	28,989,529	6,734,180	930,077	5,636,108	11,870	42,301,764
Average amounts approved per veteran.. \$	4,994	5,171	3,968	2,266	2,259	4,837
Average conditional grants per veteran.... \$	1,953	1,400	1,755	2,266	2,259	1,718

¹ Excluding Indian veterans on Reserve Lands.

The construction of new houses continued on about the same level as in the previous year, with an even higher percentage (85.7) being built by the veterans themselves acting as their own contractors.

4.—House Construction under the Veterans' Land Act, 1942, as at Mar. 31, 1952

Item	Full-Time Farming	Small Holdings	Commercial Fishing	Provincial Lands	Federal Lands	Total
	No.	No.	No.	No.	No.	No.
Houses completed.....	1,089	10,943	205	1,046	84	13,367
Houses under construction.....	213	1,567	17	197	9	2,003
Houses projected.	297	613	20	192	—	1,122
Net applications for new housing.	1,599	13,123	242	1,435	93	16,492

Veterans Life Insurance.—The administration and statistics concerning veterans life insurance will be found in Chapter XXVI.

War Veterans' Allowance.—The War Veterans' Allowance Act is administered by the War Veterans' Allowance Board. The allowance provides assistance to veterans with service in a theatre of actual war or who, in lieu of such service, are in receipt of a disability pension and have reached the age of 60, or earlier if their physical condition prevents them earning their own living. The allowance may also be paid to the widows of veterans who would themselves have been qualified, but in the case of widows it is payable at the age of 55, or earlier if their physical condition makes the allowance necessary. The allowance is not paid as of right but is subject to certain financial tests.

This Act was completely revised during the Sixth Session of the 21st Parliament, 1952. The new Act recognizes that many of the older veterans are still able to take light or intermittent employment, and its provisions encourage this by eliminating

the ceiling on wages for eligible veterans over 60 years during the months in which they are employed and permitting them to receive the allowance during the months in which they may be unemployed.

The maximum rate of an allowance for a single recipient was increased from \$40.41 to \$50 a month, and for a married recipient from \$70.83 to \$90 a month. The permissible income ceiling was raised from \$610 to \$720 a year for a single veteran and from \$1,100 to \$1,200 a year for a married veteran. Where a veteran's wife is blind, the ceiling was raised from \$1,100 to \$1,320 a year.

The previous provision whereby upon the death of a recipient the widow could be granted twelve monthly payments of the amount of the award in payment to him at the time of his death has been changed to permit the payment to the widow of the maximum amount permissible under the Act, i.e., \$90 a month for twelve months. The same provision has been extended in the new Act to the recipient bereft by death of his spouse. This latter provision is entirely new and is designed to assist the veteran recipient in discharging the costs of the last illness and funeral of his wife and his adjustment to single status.

The maximum monthly allowance for orphans has been increased to \$40 for one orphan, \$70 for two orphans, and \$85 for three or more orphans of one veteran. The amount of personal liquid assets that an applicant may have before being granted the allowance is \$1,000 in the case of a single veteran and \$2,000 for a married veteran. In both instances, interest from bonds, etc., up to a maximum of \$25 annually is permitted as exempt income. The permissible value of property which the veteran owns or in which he may have an equity has been raised from \$4,000 to \$6,000. Complete medical and dental treatment by the Department without cost is available.

As at Mar. 31, 1952, there were 37,959 recipients including 8,736 widows. The liability for the year was \$20,945,255.

CHAPTER VII.—CRIME AND DELINQUENCY*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Canadian Criminal Law and Procedure†

The system under which justice is administered in a State is never rigid. This is neither expedient nor indeed possible. A judicial system must grow and adapt itself to the requirements of the people, and the exact limits of the powers of the different legislative bodies require continued definition by the courts.

The exclusive legislative authority of the Parliament of Canada extends to criminal law throughout Canada. This law is based on the common law of England, built up through the ages and consisting first of customs and usages and later of principles enunciated by generations of judges and introduced into Canada, as regards criminal law, by Royal Proclamation in 1763. For particulars of the Federal judiciaries see Chapter II, pp. 61-63.

The judicial systems of the provinces as they exist to-day are based upon the British North America Act of 1867. Section 91 provides that "the exclusive legislative authority of the Parliament of Canada extends to . . . the criminal law, except the constitution of courts of criminal jurisdiction, but including the procedure in criminal matters". In each province (Sect. 92, ss. 14), the legislature may, exclusively, make laws in relation to "the administration of justice in the province, including the constitution, maintenance and organization of provincial courts, both of civil and of criminal jurisdiction and including procedure in civil matters in those courts". The Parliament of Canada may, however (Sect. 101), establish any additional courts for the better administration of the laws of Canada. For further details of the provincial judiciaries see Year Book 1951, pp. 76-83.

It is frequently difficult to distinguish between "law" and "procedure". Procedure may be interpreted to relate simply to the organic working of the courts, but in a wider sense it may also affect the rights or alter the legal relations arising out of any given set of facts.

* Except as otherwise credited, this Chapter has been revised in the Judicial Section, Health and Welfare Division, Dominion Bureau of Statistics.

† Revised by F. P. Varcoe, Deputy Minister, Department of Justice, Ottawa.

Prior to Confederation, each province had its own criminal jurisprudence and statutes which caused great and increasing inconvenience until the adoption of various consolidation Acts, the chief of which are the Criminal Law and Amendment Acts of 1869 and the Criminal Procedure Act of 1886. These Acts deal exhaustively with procedure in respect of indictable and non-indictable offences, jurisdiction of justices of the peace, juvenile offenders, speedy trials, criminal law, schedules and forms, etc.

Codification of the law of crimes by a Criminal Code Bill, founded on the English draft code of 1880, *Stephen's Digest of Criminal Law*, *Burbidge's Digest of the Canadian Criminal Law*, and on the Canadian statutory law, was introduced by the Minister of Justice, Sir John Thompson, passed both Houses of Parliament and became law July 1, 1893.

The Criminal Code classifies offences as indictable and non-indictable. Indictable offences include all offences which are not punishable by way of summary convictions. A limited few of such offences are triable by magistrates without the consent of the accused, by virtue of Part XVI of the Criminal Code relating to the summary trial of indictable offences. The majority, however, are triable only in the Superior Court of the province with a jury, or by consent of the accused, either under Part XVIII of the Criminal Code relating to the speedy trial of indictable offences, or under Part XVI of the Criminal Code relating to the summary trial of indictable offences. Cases triable by jury without the consent of the accused are: treason, treasonable offences, assaults on the Queen, mutiny, unlawfully obtaining and communicating official information, taking of oath to commit certain crimes, seditious offences, libels on foreign sovereigns, piracy, corruption of officers employed in prosecuting offenders, frauds on the Government, breach of trust by public officers, municipal corruption, selling of appointments to any office, murder, attempt to murder, conspiracy to murder, accessory after the fact to murder, manslaughter, rape, attempt to commit rape, defamatory libel, combination in restraint of trade, conspiring or attempting to commit, or being accessory after the fact to any of the above offences, also bribery or undue influence, personation or other corrupt practice under the Canada Elections Act. Also, when an offence is punishable with imprisonment for a period exceeding five years, the Attorney General may require the charge to be tried by jury.

Capital offences now include levying war, murder, piracy in cases of violence, rape, and treason. This is a drastic modification of the Code as it stood a century and a half ago. For further details of law and procedure see the Year Book 1951, pp. 256-258.

In the Province of Quebec a district magistrate has powers extending beyond those of a magistrate in any other province. He has the same jurisdiction as a county court judge in Ontario and disposes of cases under Part XVIII of the Criminal Code, whereas the jurisdiction of the magistrates of other provinces extends only to Parts XV and XVI of the Criminal Code.

Non-indictable offences include cases usually dealt with summarily by police magistrates and justices of the peace under Part XV of the Criminal Code or under the Provincial Summary Convictions Acts, as the case may be, and comprise breaches of municipal regulations and other minor offences.

The statistics presented in this Chapter are collected directly from the criminal courts in the different judicial districts throughout Canada. There are 157 such districts divided by provinces as follows: Newfoundland 7, Prince Edward Island 3,

Nova Scotia 7, New Brunswick 15, Quebec 28, Ontario 48, Manitoba 6, Saskatchewan 21, Alberta 12, British Columbia 8, Yukon Territory 1 and the Northwest Territories 1.

Although Newfoundland became a Province of Canada on Mar. 31, 1949, and the Criminal Code of Canada was proclaimed in that Province on Aug. 1, 1950, statistics of criminal and other offences and delinquencies will not be available on a uniform basis with those of the other provinces and territories until 1951. The only information presently available regarding Newfoundland is given in Section 4. Data in the other Sections are entirely exclusive of that Province.

Section 2.—Adult Offenders and Convictions

Subsection 1.—Adults Convicted of Indictable Offences

The main interest in criminal statistics is concerned with those persons guilty of the more serious crimes. Such offenders are fewer than those who commit non-indictable offences but, from the standpoint of the protection of society, they are more important.

At a Dominion-Provincial Conference on Criminal Statistics, held in 1949 and attended by representatives of the Provincial Departments of the Attorneys General and the Departments of Health and Welfare, it was recommended that the method of compilation of Canadian criminal statistics be changed to base the statistics of indictable crimes on offenders rather than, as in the past, on convictions, a procedure later approved by the provinces.

This innovation makes impossible any comparisons of the tables in this subsection with those on indictable offences in previous Year Books, but the advantage of obtaining a truer and a more readily understood analysis of persons responsible for serious crimes in Canada outweighs this disadvantage. It is more logical to have details of age, sex, marital status, etc., related to the offenders of crimes rather than to the convictions for crimes. Thus, where any person is prosecuted at the same hearing for several offences, one offence has to be selected for tabulation. The rule followed is to select that for which the proceedings were carried to the furthest stage—to conviction and sentence if the prisoner was tried on several charges; if there are several convictions, the offence selected is that for which the heaviest punishment was awarded; if the final result of proceedings on two or more charges is the same, the most serious offence (as measured by the maximum penalty allowed by the law) appears in the tables. Where a person is prosecuted for one offence and convicted of another (e.g., charged with murder and convicted of manslaughter), the case appears only under the offence of which he is convicted.

In the case of non-indictable offences, the figures given continue to be based on convictions and are comparable with those previously published.

Statistics are for years ended Sept. 30 and include only cases finally determined within the year. Cases not entirely disposed of within the year (e.g., tried but sentence postponed) are held over for the next year's report.

1.—Adults Convicted of Indictable Offences and Ratio per 10,000 Population, 16 Years of Age or Over, by Provinces, Years Ended Sept. 30, 1949 and 1950

Province or Territory	1949		1950	
	Persons Convicted	Ratio to Population	Persons Convicted	Ratio to Population
	No.	No.	No.	No.
Newfoundland.....	..	..	..	..
Prince Edward Island.....	119	19	124	20
Nova Scotia.....	1,522	35	1,464	33
New Brunswick.....	787	24	905	27
Quebec.....	6,923	27	6,417	25
Ontario.....	12,577	39	12,818	39
Manitoba.....	1,614	29	1,802	32
Saskatchewan.....	1,133	19	1,134	19
Alberta.....	2,305	39	2,401	40
British Columbia.....	3,839	46	4,178	50
Totals.....	30,819	34	31,243	34
Yukon and Northwest Territories.....	103	1	142	1
Canada.....	30,922	1	31,385	1

¹ Estimates of population 16 years of age or over are not available for the Yukon and Northwest Territories.

Indictable offences are divided into six classes as shown in Table 2. Class I covers crimes against the person. In the period under review the number of offenders in this class was not large, being practically the same in 1950 as in 1949. Over 70 p.c. of the offenders were convicted of such crimes as assaults of various kinds and obstructing police. Nineteen persons were convicted of murder in 1950, seven less than in 1949; 13 of attempted murder; and 75 of manslaughter as against 51 in the preceding year.

Classes II, III, IV and V cover offences against property. Thieves predominate among all other offenders in these classes though the number was slightly lower in 1950 than in 1949. Burglars and robbers whose serious crimes involve acts of violence were the next most numerous and in 1950 increased by 8 p.c. over 1949. The number of persons who maliciously damaged property decreased in 1950 except for those guilty of arson who, though not many, doubled in number.

Miscellaneous offences are listed in Class VI. Reckless and drunken drivers who endanger many lives increased in numbers during 1950, the latter by 17 p.c. There were 356 offenders under the Opium and Narcotic Drug Act, an increase of only three over 1949; 252 of these were males and 300 were convicted of possessing heroin. Of these offenders, 302 or 85 p.c. were born in Canada; British Columbia courts convicted 48 p.c. of the total and Ontario courts 24 p.c.

2.—Adults Convicted of Indictable Offences, by Classes of Offence, Years Ended Sept. 30, 1949 and 1950

(Exclusive of Newfoundland)

Class and Offence	1949			1950			Increase or Decrease in Persons Convicted
	Adults Charged	Adults Convicted		Adults Charged	Adults Convicted		
		M.	F.		M.	F.	
	No.	No.	No.	No.	No.	No.	p.c.
Class I.—Offences against the Person—							
Abduction.....	24	12	1	21	13	3	+ 23
Assault, common, aggravated and on police.....	5,310	3,962	232	5,241	3,930	225	— 0.9
Offences against females ¹	1,161	825	27	1,163	845	27	+ 2.3
Manslaughter and murder.....	194	72	5	174	83	11	+ 22.1
Attempted murder; shooting and wounding.....	259	192	9	263	184	12	— 2.5
Non-support, desertion.....	368	249	8	336	221	8	— 10.9
Other offences against the person.....	346	273	27	396	310	27	+ 12.3
Totals, Class I.....	7,662	5,585	309	7,594	5,586	313	+ 0.1
Class II.—Offences against Property with Violence—							
Burglary and robbery.....	4,520	3,952	63	4,838	4,292	44	+ 8.0
Totals, Class II.....	4,520	3,952	63	4,838	4,292	44	+ 8.0
Class III.—Offences against Property without Violence—							
Fraud, embezzlement and false pretences.....	2,010	1,614	122	2,265	1,809	141	+ 12.3
Receiving stolen goods.....	1,083	819	38	1,105	867	46	+ 6.5
Theft.....	11,430	9,457	722	11,179	9,162	804	— 2.1
Totals, Class III.....	14,523	11,890	882	14,549	11,838	991	+ 0.4
Class IV.—Malicious Offences against Property—							
Arson.....	72	51	4	136	107	5	+103.6
Malicious damage to property.....	905	718	44	774	606	36	— 15.7
Totals, Class IV.....	977	769	48	910	713	41	— 7.7
Class V.—Forgery and Other Offences against the Currency—							
Offences against currency.....	11	9	—	36	27	—	+200.0
Forgery and uttering forged documents.....	684	603	59	715	607	70	+ 2.3
Totals, Class V.....	695	612	59	751	634	70	+ 4.9
Class VI.—Offences not included in the Foregoing Classes—							
Dangerous or reckless driving.....	1,865	1,679	21	2,006	1,703	31	+ 2.0
Driving car while drunk.....	1,641	1,341	15	1,842	1,574	11	+ 16.9
Opium and Narcotic Drug Act, offences against.....	425	255	98	420	252	104	+ 0.9
Gambling and lotteries.....	962	820	39	897	782	61	— 1.9
Keeping bawdy houses and inmates.....	237	47	150	229	83	134	+ 10.2
Various.....	2,627	2,136	152	2,441	1,985	143	— 7.0
Totals, Class VI.....	7,757	6,278	475	7,835	6,379	484	+ 1.6
Grand Totals.....	36,134	29,086	1,836	36,477	29,442	1,943	+ 1.5

¹ Offences against females include: abortion, assault against females or wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape and seduction.

Table 3 shows that, in 1950, 64.1 p.c. of the persons convicted of indictable offences had not gone beyond elementary school grades in education, 40.6 p.c. were 24 years of age or younger, 11.8 p.c. were 45 years of age or over, and 75.7 p.c. lived in urban centres. Of these offenders, 93.8 p.c. were males; 88.9 p.c. were born in Canada; 55.5 p.c. were unmarried; 26.0 p.c. were recorded as labourers; and 7.1 p.c. had no employment.

3.—Persons Convicted of Indictable Offences, classified by Occupation, Marital Status, Sex, Birthplace, etc., Years Ended Sept. 30, 1949 and 1950

(Exclusive of Newfoundland)

Item	1949	1950	Item	1949	1950
No.	No.	No.	No.	No.	No.
Type of Occupation—			Sex—		
Agriculture.....	2,278	2,014	Male.....	29,086	29,442
Armed Services.....	474	264	Female.....	1,836	1,943
Clerical.....	973	602			
Commercial.....	1,809	2,622	Educational Status—		
Construction.....	2,608	3,024	Unable to read or write.....	1,039	1,039
Finance and insurance.....	44	70	Elementary.....	19,085	19,068
Fishing and trapping.....	312	303	High school.....	6,618	8,172
Labour.....	8,227	8,166	Superior.....	1,055	865
Logging and lumbering.....	1,195	1,194	Not given.....	3,125	2,241
Manufacturing.....	3,002	3,012			
Mining and quarrying.....	604	703	Age—		
Service—			16 to 19 years.....	5,614	6,033
Domestic.....	507	474	20 to 24 years.....	6,858	6,716
Personal.....	1,392	1,298	25 to 44 years.....	13,236	13,619
Professional.....	267	249	45 years or over.....	3,555	3,717
Public.....	196	147	Not given.....	1,659	1,300
Recreational.....	102	138			
Student.....	519	667	Birthplace—		
Transportation and communica- tions.....	3,183	3,328	Canada.....	26,970	27,897
Unemployed and retired.....	1,898	2,220	British Isles and Common- wealth.....	943	971
Not given.....	1,332	890	United States.....	481	497
Totals.....	30,922	31,385	Europe.....	1,219	1,260
Marital Status—			Asia.....	143	144
Single.....	16,812	17,411	Other foreign countries.....	15	13
Married.....	11,158	11,535	Not given.....	1,151	603
Widowed.....	374	399	Residence—		
Divorced.....	152	189	Urban centres.....	22,677	23,782
Separated.....	603	538	Rural districts.....	7,289	7,061
Not given.....	1,823	1,313	Not given.....	956	542

Female Offenders.—There were 1,943 female offenders convicted of indictable offences in 1950, 107 more than in 1949 or an increase of 5.8 p.c. New Brunswick, Quebec and Ontario were the only provinces showing decreases. Nearly 44 p.c. of the women convicted in 1950 were found guilty of theft and receiving stolen goods, while 12 p.c. were committed for assault.

4.—Females Convicted of Indictable Offences, by Provinces, Years Ended Sept. 30, 1949 and 1950

Province or Territory	Numbers of Females Convicted		Percentages of Females Convicted to Total Convictions	
	1949	1950	1949	1950
Newfoundland.....	..	..	0.8	2.4
Prince Edward Island.....	1	3	3.4	4.5
Nova Scotia.....	50	66	4.5	3.6
New Brunswick.....	34	33	5.5	5.2
Quebec.....	359	335	6.8	6.0
Ontario.....	796	772	9.3	10.7
Manitoba.....	137	192	4.7	5.6
Saskatchewan.....	51	64	7.2	6.9
Alberta.....	154	166	7.1	7.3
British Columbia.....	253	303	0.9	6.3
Yukon and Northwest Territories.....	1	9		
Canada.....	1,836	1,943	6.3	6.2

Persons with Multiple Convictions.—Table 5 shows the number of persons having more than one conviction at a court appearance for the years 1946-50. Multiple convictions occur most often in cases of forgery and uttering, false pretences, theft, receiving stolen goods and burglary.

5.—Persons Convicted of More than One Offence at the Time of Trial compared with Persons Convicted of One Offence, Years Ended Sept. 30, 1946-50

(Exclusive of Newfoundland)

Item	1946	1947	1948	1949	1950
	No.	No.	No.	No.	No.
Persons Convicted of—					
2 offences.....	2,387	2,364	2,260	2,593	1,769
3 ".....	627	646	590	814	507
4 ".....	304	308	332	363	275
5 ".....	129	157	154	195	174
6 ".....	111	111	98	120	108
7 ".....	68	46	56	63	70
8 ".....	51	47	47	63	50
9 ".....	34	41	42	46	46
10 ".....	17	26	27	56	31
11 to 20 offences.....	73	83	93	107	88
21 offences or over.....	16	33	25	30	14
Totals, Convicted of More than One Offence...	3,817	3,862	3,724	4,450	3,132
Totals, Convicted of One Offence.....	34,886	31,271	28,959	26,472	28,253
Grand Totals.....	38,703	35,133	32,683	30,922	31,385

Disposition of Cases and Recidivism.—Of all suspects before the courts for indictable crimes, 86 p.c. were adjudged guilty in 1950; the convictions against males (86.3 p.c.) constituted a higher percentage than those against females (81.7 p.c.) and varied greatly as between provinces. New Brunswick showed the highest percentage (95.7 p.c.) of convicted persons and Nova Scotia the lowest percentage (74.5 p.c.).

In 1950, 60.2 p.c. of the convicted persons were first offenders, 9.1 p.c. had previously been found guilty of one offence and 20.7 p.c. had two or more earlier convictions. Court records for the remaining 10.0 p.c. were not obtained. These proportions were much the same in 1949 when 57.7 p.c. of those convicted were first offenders, 8.5 p.c. were second offenders and 20.2 p.c. third offenders; information for the remaining 13.6 p.c. was not stated.

6.—Persons Charged, Acquitted and Convicted of Indictable Offences, Years Ended Sept. 30, 1949 and 1950

(Exclusive of Newfoundland)

Item	1949	1950
	No.	No.
Charges.....	36,134	36,477
Acquittals ¹	5,212	5,092
Convictions.....	30,922	31,385
Males.....	29,086	29,442
Females.....	1,836	1,943
First convictions.....	17,856	18,893
Second convictions.....	2,634	2,855
Reiterated convictions.....	6,244	6,512
Not given.....	4,188	3,125

¹ Includes dismissals, disagreement of jury, stay of proceeding, no bill and detained because of insanity.

7.—Persons Charged and Convicted and Percentages respecting Indictable Offences, by Provinces, Years Ended Sept. 30, 1949 and 1950

Province or Territory	1949			1950		
	Charges	Convictions		Charges	Convictions	
	No.	No.	p.c.	No.	No.	p.c.
Newfoundland.....	..	..	..	..	..	..
Prince Edward Island.....	125	119	95.2	131	124	94.7
Nova Scotia.....	1,954	1,522	77.9	1,964	1,464	74.5
New Brunswick.....	841	787	93.6	946	905	95.7
Quebec.....	8,004	6,923	86.5	7,252	6,417	88.5
Ontario.....	15,267	12,577	82.4	15,691	12,818	81.7
Manitoba.....	1,725	1,614	93.6	1,889	1,802	95.4
Saskatchewan.....	1,221	1,133	92.8	1,213	1,134	93.5
Alberta.....	2,481	2,305	92.9	2,589	2,401	92.7
British Columbia.....	4,411	3,839	87.0	4,644	4,178	90.0
Yukon and N.W.T.....	105	103	98.1	158	142	89.9
Canada.....	36,134	30,922	85.6	36,477	31,385	86.0

Sentences.—The types of sentences were in much the same proportion in 1949 and 1950. In the latter year 29.1 p.c. of persons convicted of indictable crimes were fined; 38.1 p.c. were sent to gaol without option of fine, 6.5 p.c. were committed to reformatories and 6.6 p.c. to penitentiaries, and 19.6 p.c. were given suspended sentence or put on probation. Eighteen males and one female were given the death sentence.

8.—Sentences given Persons for Indictable Offences, by Provinces, Year Ended Sept. 30, 1950, with Totals for 1949

(Exclusive of Newfoundland)

Sentence	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada 1950	Canada 1949
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Option of fine.....	41	471	328	1,908	2,974	475	394	867	1,643	39	9,140	9,666
Gaol—												
Under one year..	49	492	334	2,519	3,773	561	485	804	1,257	80	10,354	10,022
One year or over.	5	12	6	535	315	161	91	206	267	9	1,607	1,601
Reformatory.....	—	7	4	60	1,846	39	—	7	91	—	2,054	1,964
Penitentiary—												
Two years and under five.....	5	150	79	543	461	53	44	146	248	5	1,734	1,518
Five years or over.....	—	11	4	129	78	12	3	28	59	1	325	268
Life.....	—	—	—	3	1	—	—	1	—	—	5	2
Preventive detention.....	—	—	—	—	—	—	—	—	2	—	2	1
Death.....	—	—	—	6	4	2	1	3	3	—	19	26
Suspended sentence or other disposition.....	24	321	150	714	3,366	499	116	339	608	8	6,145	5,854
Totals.....	124	1,464	905	6,417	12,818	1,802	1,134	2,401	4,178	142	31,385	30,922

Court Proceedings.—The 1950 figures show that 68.3 p.c. of the persons tried by jury were convicted; speedy trials (by court after waiver of jury trial) brought convictions in 75.1 p.c. of the cases and summary trials by magistrates ended in convictions in 87.3 p.c. of the cases.

Of persons charged on indictment, 90.9 p.c. were tried by magistrate or family court judge, 2.5 p.c. by judge and jury and 6.6 p.c. by judge alone.

Tables 9 and 10 summarize court proceedings for the year ended Sept. 30, 1950.

9.—Method of Trial of Persons Charged with Indictable Crimes showing Disposition of Cases, by Provinces, Year Ended Sept. 30, 1950
(Exclusive of Newfoundland)

Method of Trial	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.	Totals
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
By Jury—											
Convicted.....	4	46	16	96	180	18	15	28	205	—	608
Acquitted.....	—	3	1	7	12	—	1	—	2	—	26
Detained because of insanity.....	—	22	11	38	75	6	10	20	69	2	253
Disagreement of Jury Stay of Proceedings No Bill and <i>Nolle Prosequi</i>	—	—	1	4	5	—	—	—	2	—	13
	—	—	—	3	7	—	—	—	—	—	13
	—	—	—	—	1	—	—	—	—	—	1
	—	—	—	—	—	—	—	—	—	—	—
	—	3	1	—	2	3	—	—	5	—	14
	—	—	—	—	—	—	—	—	—	—	—
By Speedy Trial—											
Convicted.....	5	113	32	743	488	51	30	89	178	1	1,730
Acquitted.....	—	9	1	40	17	4	2	9	5	—	87
Detained for insanity.....	—	21	—	261	181	2	15	15	46	—	545
Stay of Proceedings No Bill and <i>Nolle Prosequi</i>	—	1	—	29	15	—	1	—	4	—	50
	—	—	—	—	—	—	—	—	1	—	1
	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	4	—	1	—	—	5
	—	—	—	—	—	1	—	—	1	—	2
By Summary Trial—											
Convicted.....	112	1,239	824	5,243	11,378	1,541	1,025	2,118	3,492	132	27,104
Acquitted.....	3	54	31	288	743	188	61	157	296	9	1,830
Detained because of insanity.....	—	386	25	463	2,341	64	43	140	299	14	3,793
Stay of Proceedings No Bill and <i>Nolle Prosequi</i>	—	51	2	28	229	6	4	10	30	—	360
	—	4	—	7	12	—	—	—	—	—	23
	—	—	—	1	5	—	—	—	—	—	6
	—	—	—	1	—	1	—	2	6	—	10
	—	—	—	—	—	—	—	—	3	—	3
Totals, Persons Charged.....	131	1,964	916	7,252	15,691	1,859	1,213	2,589	4,644	158	36,477
Totals, Persons Convicted.....	124	1,464	905	6,417	12,818	1,802	1,134	2,401	4,178	142	31,385

**10.—Persons Charged and Convicted of Indictable Crimes according to Trial Court,
by Provinces, Year Ended Sept. 30, 1950**

(Exclusive of Newfoundland)

Province or Territory	Persons Charged and Convicted by—						Totals
	Police Magistrate or Recorder's Court	Justice of the Peace	Juvenile or Family Court	County Court	Circuit Court	Higher Court	
	No.	No.	No.	No.	No.	No.	No.
P.E. Island..... Charged	116	—	2	9	—	4	131
Convicted	113	—	2	5	—	4	124
Nova Scotia..... Charged	1,741	—	4	143	—	76	1,964
Convicted	1,290	—	4	122	—	48	1,464
New Brunswick..... Charged	879	—	3	34	12	18	946
Convicted	852	—	3	34	9	7	905
Quebec..... Charged	5,603	—	454	1,037	—	158	7,252
Convicted	5,098	—	454	752	—	113	6,417
Ontario..... Charged	14,555	—	171	686	—	279	15,691
Convicted	11,975	—	158	492	—	193	12,818
Manitoba..... Charged	1,593	—	207	62	—	27	1,889
Convicted	1,524	—	205	55	—	18	1,802
Saskatchewan..... Charged	1,097	46	—	43	—	27	1,213
Convicted	1,045	45	—	29	—	15	1,134
Alberta..... Charged	2,258	—	180	30	—	121	2,589
Convicted	2,106	—	179	21	—	95	2,401
British Columbia... Charged	3,762	1	370	265	1	245	4,644
Convicted	3,432	1	358	205	1	181	4,178
Yukon and N.W.T.. Charged	156	—	—	—	—	2	158
Convicted	142	—	—	—	—	—	142
Totals..... Charged	31,760	47	1,391	2,309	13	957	36,477
 Convicted	27,577	46	1,363	1,715	10	674	31,885

Subsection 2.—Young Adult Offenders (16-24 Years)

Young men and women from 16 to 24 years of age formed 40.6 p.c. of the criminal population who committed indictable offences in 1950, although they comprise only about 21 p.c. of the total population of 16 years of age or over. As this age group includes some of the most daring offenders and, at the same time, those most likely to profit by education and training, it seems worth while to give consideration to it as distinct from the older and confirmed offender groups.

Over 75 p.c. of the young offenders were tried in three provinces—Ontario (40.8 p.c.), Quebec (22.7 p.c.) and British Columbia (12.5 p.c.). Almost one-half (47.2 p.c.) of them were under 20 years of age.

11.—Young Adult Offenders, by Age Groups and Provinces, Year Ended Sept. 30, 1950

(Exclusive of Newfoundland)

Age Groups and Sex	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
16-17 years.....M.	10	105	59	638	1,064	166	101	182	419	1	2,743
F.	—	6	1	18	54	49	9	14	28	2	181
18-19 "M.	9	146	80	652	1,226	129	122	200	349	6	2,919
F.	—	4	1	19	83	18	10	29	23	1	188
20-24 "M.	21	284	159	1,487	2,599	288	243	493	710	21	6,305
F.	2	8	8	85	171	27	13	37	59	1	411
Totals.....	42	553	308	2,899	5,197	677	498	955	1,588	32	12,749

Among all male offenders, the young men aged 16 to 24 years were responsible for 33.4 p.c. of the assaults (including obstructing the police). They represented 55.0 p.c. of the total who attempted and committed rape; 66.5 p.c. of the male robbery and burglary convictions; 44.9 p.c. of those guilty of damage to property without violence, which includes all thefts; 75.5 p.c. of those who stole motor-vehicles; and 42.4 p.c. and 48.4 p.c., respectively, of those who maliciously damaged property and were found with offensive weapons.

Young male offenders within the age groups 16 to 24 years were convicted of 171 more crimes in 1950 than in 1949, an increase of 1.4 p.c. The only classes of crime showing decreases were forgery and uttering and malicious damage to property. Thefts and receiving stolen goods accounted for 41.0 p.c. of the total young male offenders, burglaries and robberies 23.8 p.c., and common and aggravated assault 11 p.c.

Of the total females convicted of indictable offences, 40.1 p.c. fell within this group of young offenders. Over 50 p.c. of the females committed for forgery and uttering were in this group, as were 46 of the 47 women found guilty of offences against public morals.

Young women were convicted of 106 more offences in 1950 than in 1949, an increase of 15.8 p.c. While there was a decided decrease in the number convicted of burglary and robbery in 1950, and a slight decrease in those guilty of malicious damage to property, these decreases did not counterbalance the increases in other classes of offence. Thefts and receiving stolen goods brought over one-half of these young women to court.

12.—Young Adult Offenders Convicted of Indictable Offences, by Classes of Offence and Sex, Years Ended Sept. 30, 1949 and 1950

(Exclusive of Newfoundland)

Class and Offence	1949		1950	
	Male	Female	Male	Female
	No.	No.	No.	No.
Class I.—Offences against the Person—				
Abduction.....	7	—	3	2
Assault, common and aggravated.....	1,294	51	1,314	59
Offences against females ¹	221	11	241	4
Manslaughter and murder.....	16	3	21	4
Attempted murder; shooting and wounding.....	60	1	48	2
Non-support, desertion and cruelty to children.....	30	3	21	1
Other offences against the person.....	71	8	88	15
Totals, Class I.....	1,699	77	1,736	87
Class II.—Offences against Property with Violence—				
Burglary and robbery.....	2,619	42	2,854	29
Totals, Class II.....	2,619	42	2,854	29
Class III.—Offences against Property without Violence—				
Fraud, embezzlement and false pretences.....	376	47	410	53
Receiving stolen goods.....	335	11	344	25
Theft.....	4,565	311	4,564	366
Totals, Class III.....	5,276	369	5,318	444
Class IV.—Malicious Offences against Property—				
Arson.....	18	1	28	—
Malicious damage to property.....	388	16	274	14
Totals, Class IV.....	406	17	302	14
Class V.—Forgery and Other Offences against the Currency—				
Offences against currency.....	6	—	4	—
Forgery and uttering forged documents.....	247	33	206	36
Totals, Class V.....	253	33	210	36
Class VI.—Other Offences—				
Carrying unlawful weapons.....	178	1	151	2
Dangerous or reckless driving.....	434	1	435	7
Driving car while drunk.....	210	3	208	2
Offences against public morals.....	38	24	38	46
Opium and Narcotic Drug Act, offences against.....	39	2	30	23
Gambling and lotteries.....	57	8	61	4
Keeping bawdy houses and inmates.....	6	41	7	49
Riots and unlawful assembly.....	169	—	149	1
Various.....	415	55	471	35
Totals, Class VI.....	1,546	135	1,550	169
Grand Totals.....	11,799	673	11,970	779

¹ Offences against females include: abortion, assault against females, assault against wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape, seduction and wife desertion.

In Table 13 the rates per 100,000 estimated population show the proportions of young offenders in three age groups.

13.—Rates per 100,000 Population of Young Adults Convicted of Indictable Offences, by Age Groups, Years Ended Sept. 30, 1949 and 1950

(Exclusive of Newfoundland)

Age Group	1949			1950		
	Number of Offenders	Per 100,000 Population in Respective Group	Percentage Change from Preceding Year	Number of Offenders	Per 100,000 Population in Respective Group	Percentage Change from Preceding Year
16-17 years.....	2,682	627	..	2,926	684	+9.1
18-19 "	2,932	675	..	3,107	718	+6.0
20-24 "	6,858	617	..	6,716	606	-2.1

The sentences meted out to these young people varied somewhat from those given to offenders of over 24 years of age. A higher proportion of them in 1950 were given suspended sentence, put on probation or sent to reformatories while a lower proportion were fined or given gaol or penitentiary sentences.

14.—Disposition of Sentences for Indictable Offences, Year Ended Sept. 30, 1950

(Exclusive of Newfoundland)

Disposition of Sentences	Males		Females	
	16-24 Years	25 Years or Over	16-24 Years	25 Years or Over
	p.c.	p.c.	p.c.	p.c.
Suspended sentence.....	14.5	9.8	23.1	17.2
Probation.....	11.1	3.9	24.1	10.3
Fined.....	22.4	33.8	17.5	34.7
Gaol.....	35.4	40.9	26.4	32.6
Reformatory.....	9.6	4.6	8.0	2.6
Penitentiary.....	6.8	7.0	0.9	2.5
Death.....	0.2	0.1	—	0.1

Through suspending sentence and probation supervision many of these young offenders received another chance to make good, while reformatory training gave others an opportunity to better their employment possibilities. In this connection it is interesting to note that 34.7 p.c. of the males were recorded as labourers, which indicates that they had no particular skill by which to earn a living; the proportion of male offenders of all ages recorded as labourers was 22.9 p.c. About 6 p.c. of the youths were unemployed and 78.8 p.c. lived in urban centres.

Of the young female offenders, 28.8 p.c. were not gainfully employed; domestic or personal service was the occupation of 39.5 p.c. and 85.1 p.c. lived in urban centres.

Since those convicted of non-indictable offences are not reported by age of offender, it is not possible to segregate young people of 16 to 24 years of age who have had summary convictions.

Subsection 3.—Convictions for Non-indictable Offences

Non-indictable offences—those not expressly made indictable—include all offences against provincial statutes and municipal by-laws. Non-indictable offences are triable by magistrate or justice of the peace under Part XV of the Criminal Code or under the Provincial Summary Conviction Acts as the case may be.

It is debatable how far summary convictions are of a criminal nature and how much their increase indicates an increase in crime. Many are breaches of municipal by-laws and contrary to public safety, health and comfort, but they do not involve violence, cruelty or serious dishonesty as, for example, parking violations or exercising callings without licence. On the other hand, offences as serious as cruelty to animals and contributing to juvenile delinquency are included under this classification and such indictable offences as common assault and driving with ability impaired may be tried on summary conviction.

Summary convictions increased by 20·8 p.c. to 1,183,991 in 1950 from 980,489 in 1949. Increases were general in all provinces except Prince Edward Island, while Ontario and Quebec showed the largest numerical increases.

15.—Convictions for Non-indictable Offences, by Provinces, Years Ended Sept. 30, 1941-50

(Exclusive of Newfoundland)

NOTE.—Figures for 1900-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1941.....	1,664	10,254	7,703	152,330	288,874	32,481	10,499	15,434	28,096	80	141	547,556
1942.....	1,521	10,386	8,170	195,672	285,240	32,209	8,541	14,543	24,905	86	91	581,364
1943.....	1,033	8,857	7,619	181,425	204,227	21,986	7,810	11,598	20,510	145	105	465,315
1944.....	1,287	8,760	9,533	146,593	199,938	22,602	7,788	11,950	21,866	336	74	430,727
1945.....	1,394	9,786	9,818	158,580	209,713	22,820	8,996	11,576	22,887	312	36	455,918
1946.....	2,715	12,915	13,925	176,996	354,154	36,014	13,985	16,289	32,203	234	242	659,672
1947.....	2,806	12,019	14,097	188,835	407,334	47,170	15,263	18,696	45,585	328	325	752,458
1948.....	2,696	13,699	12,189	228,502	445,911	52,783	15,488	19,748	85,006	385	238	876,615
1949.....	3,118	12,617	13,131	232,132	510,837	72,023	16,465	25,551	94,326	232	57	980,489
1950.....	2,095	13,137	21,732	280,868	617,565	79,079	22,717	28,344	117,729	553	172	1,183,991

It should be remembered that, while the Criminal Code undergoes little change over a period of time, the figures for summary convictions are greatly influenced by the customs of the people and by the application and degree of enforcement of municipal regulations. These differ from place to place and from year to year and affect non-indictable offences more than they do indictable crimes.

In 1950, decreases in certain types of offences, such as common assaults, disturbing the peace, gambling, frequenting bawdy houses and operating a radio without a licence, were offset by decided increases in convictions for breaches of traffic regulations, which reached an all time peak, breaches of the Lord's Day Act, which doubled in number, and exercising callings without licence, which were 89·8 p.c. more numerous than in 1949. There were 1,399 convictions for taking a car without the owner's consent in 1950 as against 774 in 1949 and 1,823 convictions for offences against the Unemployment Insurance Act compared to 924 in 1949.

16.—Convictions for Non-indictable Offences, by Types, Years Ended Sept. 30, 1946-50

(Exclusive of Newfoundland)

Type of Offence	1946	1947	1948	1949	1950	Increase or Decrease 1949-50
	No.	No.	No.	No.	No.	p.c.
Assault (common).....	4,640	4,543	4,416	4,607	3,906	— 15.2
Disturbing the peace.....	2,399	4,438	7,544	11,018	10,568	— 4.1
Drunkenness.....	64,076	70,868	70,542	75,931	75,935	—
Vagrancy ¹	21,963	15,904	9,051	8,576	8,967	+ 4.6
Damage to property.....	1,661	1,544	1,537	1,675	1,720	+ 2.7
Gambling Acts, offences against.....	8,254	5,215	5,523	6,360	4,818	— 24.3
Bawdy houses (frequenting).....	591	373	1,111	586	480	— 18.1
Non-support and neglecting children.....	3,359	2,928	4,524	4,217	4,459	+ 5.7
Contributing to delinquency.....	1,085	1,212	1,272	1,087	1,126	+ 3.6
Traffic regulations.....	453,630	537,519	649,599	761,467	938,549	+ 23.3
Provincial and Federal Acts—						
Game and Fishing Acts.....	3,597	4,423	4,753	5,854	6,144	+ 5.0
Indian Act.....	2	2	1,570	2,386	2,426	+ 1.7
Liquor Control and Temperance Acts.....	33,362	28,486	27,744	28,259	31,738	+ 12.3
Lord's Day Act.....	572	1,235	1,428	1,014	2,072	+104.3
Radio without a licence.....	10,867	12,477	10,693	12,235	10,642	— 13.0
Railway Acts.....	1,346	1,586	1,735	1,827	2,278	+ 4.7
Revenue Laws.....	2,179	2,430	2,690	2,704	3,175	+ 17.4
Other provincial and federal Acts.....	10,529	15,610	23,006	13,240	20,399	+ 54.1
Municipal by-laws, breaches of.....	25,499	34,354	40,552	30,387	44,349	+ 95.0
Exercising various callings without licence.....	3,266	2,096	1,178	1,359	2,580	+ 89.8
Other offences.....	6,797	5,217	6,177	5,700	7,660	+ 34.4
Totals.....	659,672	752,458	876,645	980,489	1,183,991	+ 20.8

¹ Includes loose, idle and disorderly conduct.
Acts, and Drunkenness.² Included with Liquor Control and Temperance

Breaches of Traffic Regulations.—Each year breaches of traffic regulations constitute a greater proportion of the total convictions for non-indictable offences; in 1950 they amounted to 79.3 p.c., an increase of 23.3 p.c. over 1949, which accounted to a great extent for the over-all increase in convictions for all non-indictable offences.

17.—Convictions for Breaches of Traffic Regulations, by Provinces, Years Ended Sept. 30, 1941-50

(Exclusive of Newfoundland)

NOTE.—Figures for 1900-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1941.....	530	2,444	2,314	73,367	231,823	26,092	5,625	8,253	18,784	2	369,234
1942.....	331	2,594	1,765	110,579	232,646	25,522	4,034	7,779	14,705	2	399,957
1943.....	209	2,772	1,722	82,884	152,557	16,074	2,961	4,745	10,628	21	274,573
1944.....	326	1,591	1,838	85,134	146,849	10,268	2,864	4,754	10,387	10	270,021
1945.....	157	1,359	2,211	100,708	149,903	14,886	2,838	3,774	10,985	4	286,825
1946.....	327	1,707	2,014	123,915	271,379	26,266	5,253	5,574	17,193	2	453,630
1947.....	556	2,370	2,667	138,321	315,412	36,526	6,141	7,476	28,043	7	537,519
1948.....	393	4,607	2,469	174,021	352,253	41,074	6,300	7,984	60,493	5	649,599
1949.....	519	4,084	3,729	188,003	417,016	60,127	7,274	11,112	69,545	58	761,467
1950.....	366	4,265	11,909	227,857	508,010	67,832	12,362	13,772	92,038	138	938,549

For the year 1950, Ontario with 42.5 p.c. of the registrations of motor-vehicles in Canada had 54.1 p.c. of the total convictions for breaches of traffic regulations; Quebec in the same year had 16.7 p.c. of the motor-vehicles and 24.3 p.c. of the convictions. In interpreting the figures in this way, however, it should be pointed out that traffic regulations are by no means uniform throughout Canada and no account is taken of the differences in the degrees of urbanization in the provinces. The above two provinces have large urban centres, while in provinces with lower degrees of urbanization such as the Maritimes, Saskatchewan and Alberta, convictions are lower when considered in proportion to the number of motor-vehicles registered.

Convictions for Drunkenness and Offences against the Liquor Acts.—In considering Table 18, it should be noted that the same person may and often does appear before the courts on such charges more than once within a year and that the number of convictions may thus be well above the number of persons convicted.

18.—Convictions for Drunkenness, by Provinces, Years Ended Sept. 30, 1941-50
(Exclusive of Newfoundland)

NOTE.—Figures for 1900-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1941....	539	3,654	3,332	8,292	17,831	1,472	591	1,353	2,871	23	44	40,002
1942....	606	4,387	4,217	10,400	17,622	1,580	570	1,393	3,964	43	19	44,801
1943....	332	2,380	3,489	10,363	17,482	1,885	778	1,462	4,055	51	15	42,292
1944....	395	2,068	4,292	8,843	17,258	1,451	864	1,539	4,744	54	13	41,521
1945....	612	3,064	4,158	10,336	19,573	2,040	1,010	1,515	4,342	85	10	46,745
1946....	1,478	4,754	7,754	7,167	29,698	2,685	1,847	2,596	5,974	85	38	64,076
1947....	1,187	4,907	6,584	11,006	31,218	2,510	1,802	2,632	8,801	184	37	70,868
1948....	969	4,151	4,900	11,015	33,446	2,829	1,392	2,580	9,135	101	24	70,542
1949....	1,089	4,363	5,125	10,419	33,797	3,613	1,497	4,656	11,237	126	9	75,931
1950....	907	3,931	4,980	10,942	35,356	2,984	1,503	3,849	11,180	240	63	75,935

There is general interest in the relation of alcoholism to crime but when examining statistics to support the assumption that some crimes are associated with the consumption of liquor it should be observed that accurate interpretation would necessitate allowance for population variables such as age and sex distribution and other classifications according to social and economic status, etc.

19.—Convictions for Offences against the Liquor Acts, by Provinces, Years Ended Sept. 30, 1941-50
(Exclusive of Newfoundland)

NOTE.—Figures for 1900-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1941....	250	1,273	431	3,206	6,346	624	894	1,298	994	25	28	15,369
1942....	188	1,323	477	3,037	6,901	1,130	982	1,294	1,508	24	34	16,898
1943....	118	1,369	473	2,070	6,751	1,086	1,099	1,106	944	47	36	15,099
1944....	56	2,240	814	1,287	8,332	1,057	1,010	1,108	1,047	119	23	17,093
1945....	155	2,324	911	2,626	10,655	1,429	1,416	1,454	1,215	39	13	22,237
1946....	374	3,436	1,411	2,274	15,779	2,059	2,697	2,514	2,615	57	146	33,362
1947....	354	2,503	1,742	1,494	12,889	2,229	2,712	2,623	1,741	46	153	28,486
1948....	329	2,274	1,274	1,519	13,891	1,921	2,311	2,670	1,443	39	73	27,744
1949....	439	2,053	1,278	1,969	14,339	1,574	2,418	3,081	1,098	—	10	23,250
1950....	268	2,192	1,172	3,121	15,761	1,980	2,478	3,504	1,164	64	34	31,738

Conviction of Females.—The number of convictions against females for non-indictable offences has increased steadily each year since 1944; the increase in 1950 over 1949 amounted to 32.2 p.c. Only two provinces, Manitoba and Alberta, recorded decreases in 1950 from the previous year. Fewer traffic offences in these two provinces was partly the reason for the decrease, along with a decline in Alberta in cases of vagrancy and common assault, and a reduction in the number of cases of intoxication in Manitoba. British Columbia, Ontario and Quebec showed the largest percentage increases in convictions against females—38.2 p.c., 33.8 p.c., and 40.4 p.c., respectively.

Total traffic offences for which women were responsible increased in 1950 over 1949 by 37.2 p.c. and were the cause for 78.9 p.c. of the summary convictions against them.

**20.—Convictions of Females for Non-Indictable Offences, by Provinces,
Years Ended Sept. 30, 1946-50**

Province or Territory	Numbers of Convictions					Percentages of Convictions of Females to Total Convictions				
	1946	1947	1948	1949	1950	1946	1947	1948	1949	1950
Newfoundland.....	...	...	...	...	...	...	...	...	...	...
Prince Edward Island.....	124	43	65	66	67	4.6	1.5	2.5	2.1	3.2
Nova Scotia.....	635	383	469	349	389	4.9	3.2	3.5	2.8	3.0
New Brunswick.....	515	480	348	373	446	3.7	3.4	2.9	2.8	2.1
Quebec.....	6,974	6,738	6,803	7,404	10,398	3.9	3.6	3.7	3.2	3.7
Ontario.....	19,804	20,581	33,360	42,022	56,225	5.6	5.1	8.1	8.2	9.1
Manitoba.....	1,688	1,715	1,812	2,135	1,684	4.1	3.6	3.6	3.0	2.1
Saskatchewan.....	616	526	513	476	595	4.4	3.5	3.4	2.9	2.6
Alberta.....	909	1,057	1,156	1,224	1,194	5.6	5.7	6.2	4.8	4.2
British Columbia.....	2,509	2,936	7,254	7,216	9,972	7.8	6.4	9.3	7.7	8.5
Yukon and N.W.T.....	31	49	76	16	42	6.5	7.5	13.9	5.5	5.8
Canada.....	33,805	34,508	51,856	61,281	81,012	5.1	4.6	6.3	6.3	6.8

Subsection 4.—Appeals

In the calendar year 1950, the Supreme Court of Canada and the Provincial Supreme Courts dealt with 895 appeals of criminal cases as compared with 721 in 1949. The Crown was the appellant in 58 of these cases and the accused in 837 cases. The original conviction or orders were affirmed in 538 cases (60.1 p.c.), sentence was varied or the verdict changed or substituted in 201 cases (22.5 p.c.), 104 convictions (11.6 p.c.) were quashed, and 52 new trials (5.8 p.c.) were ordered.

The returns from the County and District Courts showed that 747 appeals against summary convictions were disposed of in 1950, as against 605 in the previous year. Of that number the informant was the appellant in 75 cases and the accused in 672 cases. The appeals against convictions and orders were dismissed in 430 cases (57.6 p.c.), sentence was varied and the verdict changed or substituted in 116 cases (15.5 p.c.), and there were 201 acquittals (26.9 p.c.). More than a third (38.2 p.c.) of the appeals in all the courts were heard in Ontario, 18.9 p.c. in British Columbia, 15.6 p.c. in Alberta, 9.1 p.c. in Nova Scotia and 7.7 p.c. in Quebec.

21.—Appeals in Indictable and Summary Conviction Cases, by Provinces, 1950

Province or Court	Appeals Dis- posed of by Courts	INDICTABLE OFFENCES										
		Crown Appeal					Appeal of Accused					
		From Acquittal			From Sentence		From Conviction				From Sentence	
		Dis- missed	New Trial	Con- viction	Dis- missed	Varied	Dis- missed	Ac- quitted	New Trial	Sub- sti- tuted Verdict	Dis- missed	Varied
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Nfld.....	..	..	..	..	..	..	..	..	..	..	..	..
P.E.I.....	1	—	—	—	—	—	1	—	—	—	—	—
N.S.....	12	—	—	2	—	—	8	—	2	—	—	—
N.B.....	11	—	1	5	—	—	1	2	1	1	—	—
Que.....	60	2	—	—	2	2	27	12	2	4	8	1
Ont.....	291	4	—	—	2	12	164	46	8	—	3	52
Man.....	59	1	—	—	—	—	8	1	8	1	25	15
Sask.....	31	1	—	—	—	—	11	4	2	—	7	6
Alta.....	184	3	—	1	—	3	44	14	9	—	70	40
B.C.....	243	7	—	—	6	4	94	23	17	4	40	48
Supreme Court of Canada...	3	—	—	—	—	—	—	1	2	—	—	—
Totals....	895	18	1	8	10	21	357	104	51	10	153	162

Province	Appeals Dis- posed of by Courts	SUMMARY CONVICTION CASES								
		Appeal of Informant				Appeal of Accused				
		From Acquittal		From Sentence		From Conviction			From Sentence	
		Dis- missed	Con- viction	Dis- missed	Varied	Dis- missed	Ac- quitted	Sub- sti- tuted Verdict	Dis- missed	Varied
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Nfld.....	..	..	..	..	..	..	..	..	..	..
P.E.I.....	15	—	—	—	1	9	3	1	—	1
N.S.....	138	2	15	—	2	80	27	8	4	—
N.B.....	20	1	6	—	—	11	2	—	—	—
Que.....	66	—	—	6	—	31	18	3	3	5
Ont.....	336	12	9	2	—	180	95	18	13	7
Man.....	10	—	—	—	1	3	1	4	—	1
Sask.....	23	—	1	—	—	9	9	1	—	3
Alta.....	72	4	3	—	—	33	17	3	3	9
B.C.....	67	3	5	1	1	18	29	6	2	2
Totals.....	747	22	39	9	5	374	201	44	25	28

Section 3.—Juvenile Delinquents

The Juvenile Delinquents Act defines a child as "any boy or girl apparently or actually under the age of 16 years". Provision is made, however, by which the Governor General in Council may proclaim that, in a province the definition of a child be a "person under the age of 18 years". This has been done in British Columbia, Alberta, Manitoba and Quebec. For uniformity the figures relating to juveniles compiled by the Dominion Bureau of Statistics refer to the younger ages of under 16 years only and deal primarily with cases disposed of by the courts.

In 1950 the practice was abandoned of dividing delinquencies into major and minor offences. This division has always been arbitrary and open to question depending on the standards of behaviour in different communities, as a minor delinquency in one locality may be judged a major delinquency in another.

The fact that juvenile court statistics furnish the most comprehensive figures collected on a country-wide basis makes it important that their possibilities and limitations be understood. This Section gives a picture of juvenile delinquency in Canada from the viewpoint of legal action taken, for in the eyes of the law *a child is a delinquent only when he or she is adjudged before the court to have committed a delinquency*. To many people the term 'juvenile delinquent' has a broader interpretation but that adopted in this Section does not include those boys and girls whose misdemeanours have not been reported to the courts or who have been given the necessary advice and aid from their parents, their school, the police or a child-caring agency. Moreover, it does not include those cases which are handled unofficially by the court, where the judge or probation officer makes an adjustment without filing a legal record of the offence. The tendency to follow this practice and thus keep children's names from court records is growing and may account to some extent for the almost steady decrease in the number of recorded court cases in the past seven years. In 1950 approximately 4,900 cases were disposed of in this way.

These statistics represent cases of delinquency reported to the courts from the most trivial infractions to the most serious, that of murder. The number of cases brought before the courts is influenced by such factors as personnel and facilities of the court, community interest in and understanding of the function of a juvenile court, and by variations in the policies of the courts in the disposition of cases. As more courts are established the additional returns may exaggerate an apparent increase in delinquency or may under-estimate a decrease. In some communities, the juvenile court is the only available agency to provide services to children; in others, there are well-established agencies serving children, of which the juvenile court is only one.

It should be noted, too, that the total figures do not represent the actual number of children charged and found guilty, but rather tend to exaggerate them, for a child referred to the court two or more times during the year for different offences is counted as a different case each time. Neither do they represent the number of offences committed by offenders, as when a child is charged with more than one delinquency at a hearing the most serious offence only is counted.

Reports of juvenile delinquents were received in 1949 from 131 of the 149 judicial districts; the remaining 18 districts reported no offenders. In 1950, reports were submitted by 147 districts. Twenty-nine of these had no cases to report. Separate reports were received in 1950 from 129 incorporated urban centres of 4,000 population or more.

Juveniles before the Courts.—The number of cases of juveniles brought before the courts declined steadily each year from 1943 to 1949. In 1950, according to the reports received by the Dominion Bureau of Statistics, this trend was broken when the cases of 7,304 children were heard for behaviour that was contrary to the law. However, this number, though 266 higher than that for 1949, was the second lowest in the past 25 years.

The rise of 3.8 p.c. in court appearances was accounted for by the Provinces of New Brunswick, Quebec and Ontario. Among the other provinces, Prince Edward Island and Saskatchewan showed the most marked decreases. The effect of the Saskatchewan Correction Act, 1950, may have a bearing on the sharp drop of cases in that Province.

22.—Juveniles brought before the Courts, by Provinces, 1946-50

NOTE.—Statistics for years prior to 1950 are for fiscal years ended Sept. 30. Figures for 1950 are given on a calendar-year basis; for the three months intervening—Oct. 1 to Dec. 31, 1949—see D.B.S. report, *Juvenile Delinquents, 1950*.

Province or Territory	1946	1947	1948	1949	1950	Percentage Change, 1949-50
	No.	No.	No.	No.	No.	
Newfoundland.....	...	...	...	..	..	...
Prince Edward Island.....	63	30	28	49	10	-79.6
Nova Scotia.....	491	513	518	485	411	-15.3
New Brunswick.....	385	342	277	218	281	+28.9
Quebec.....	2,183	1,908	1,889	1,490	1,555	+4.4
Ontario.....	3,684	3,262	3,256	2,983	3,550	+19.0
Manitoba.....	344	490	422	490	417	-14.9
Saskatchewan.....	203	222	193	178	80	-55.1
Alberta.....	455	300	269	292	272	-6.8
British Columbia.....	899	1,181	1,015	852	722	-15.3
Yukon Territory.....	—	4	3	1	5	+400.0
Northwest Territories.....	—	13	8	—	1	+100.0
Canada.....	8,707	8,265	7,878	7,038	7,304	+3.8

The peak in the number of girls appearing before the courts was reached in 1943, a year later than the boys, followed by a decline each year up to 1949. The number of girls appearing in 1950 (756) was higher than that in 1949 but, with this exception, lower than in any year since 1930.

23.—Percentage Changes in the Numbers of Boys and Girls brought before the Courts, 1941-50

(Exclusive of Newfoundland)

NOTE.—See headnote to Table 22.

Year	Percentage Changes from Preceding Year			Percentage Changes from 1940		
	Boys' Cases	Girls' Cases	All Cases	Boys' Cases	Girls' Cases	All Cases
1941.....	+22.1	+18.4	+21.7	+22.1	+18.4	+21.7
1942.....	+14.6	+6.7	+13.7	+39.9	+26.4	+38.4
1943.....	-12.9	+1.1	-11.4	+21.9	+27.8	+22.5
1944.....	-4.8	-10.5	-5.5	+16.0	+14.4	+15.8
1945.....	-16.3	-9.6	-15.6	-2.9	+3.4	-2.2
1946.....	-11.4	-5.8	-10.8	-14.0	-2.6	-12.7
1947.....	-3.3	-17.3	-5.1	-16.9	-19.4	-17.2
1948.....	-5.1	-1.3	-4.7	-21.1	-20.5	-21.0
1949.....	-9.0	-24.0	-10.7	-28.1	-39.6	-29.5
1950.....	+2.9	+11.8	+3.8	-26.1	-32.4	-26.8

Reasons for Court Appearances.—The number of children adjudged delinquent by the courts of the provinces, exclusive of Newfoundland, in 1950, was 6,418. This was an increase of 220 or 3.5 p.c. over the year 1949.

24.—Juvenile Delinquents, by Provinces, 1941-50

(Exclusive of Newfoundland)

NOTE.—See headnote to Table 22, p. 309.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
1941.....	75	385	436	3,967	3,467	278	316	716	570	—	10,310
1942.....	101	353	350	4,044	4,394	602	466	835	613	—	11,758
1943.....	89	488	429	3,196	4,178	438	421	447	610	—	10,296
1944.....	109	475	474	2,259	4,428	416	422	565	769	—	9,917
1945.....	115	493	338	2,387	3,531	342	334	531	838	—	8,909
1946.....	55	384	382	2,155	3,104	298	195	405	878	—	7,856
1947.....	30	412	334	1,842	2,830	424	212	277	1,167	17	7,545
1948.....	28	421	263	1,864	2,799	364	169	237	999	11	7,155
1949.....	49	433	198	1,323	2,541	403	171	246	833	1	6,198
1950.....	10	351	258	1,369	3,056	400	76	204	688	6	6,418

The greater number of delinquents in 1950 was due partly to an increase in those committing thefts of various kinds (including thefts of money, articles, mail and automobiles), receiving stolen goods, and taking a motor-vehicle without the owner's consent. Theft accounted for the delinquencies of 37.7 p.c. of the boys in 1950, robbery, burglary and breaking and entering for 22.7 p.c., and wilful damaging of property for 11.2 p.c.

Only 2.4 p.c. of the juveniles were judged to be delinquent for offences against the person and over a third of those convictions were for common assault.

The largest percentage of girls (40.7 p.c.) were judged incorrigible; theft was the weakness of 18 p.c., and immorality of 8.8 p.c.

**25.—Juvenile Delinquents by Groups of Offences and Ratios per 100,000
Population 7-16 Years of Age, 1941-50**

(Exclusive of Newfoundland)

NOTE.—See headnote to Table 22, p. 309.

Year	Offences against the Person		Offences against Property with Violence		Offences against Property without Violence		Wilful Offences against Property		Forgery and Offences against Currency		Other Offences		Total Convictions	
	No.	Ratio to Popu- lation	No.	Ratio to Popu- lation	No.	Ratio to Popu- lation	No.	Ratio to Popu- lation	No.	Ratio to Popu- lation	No.	Ratio to Popu- lation	No.	Ratio to Popu- lation
1941.....	263	13	1,407	72	3,467	178	1,063	55	14	1	4,096	210	10,310	529
1942.....	206	11	1,536	79	4,039	208	1,228	63	11	1	4,738	244	11,758	606
1943.....	260	14	1,550	81	3,658	190	1,140	59	21	1	3,667	190	10,296	535
1944.....	216	11	1,739	91	3,393	178	1,269	67	22	1	3,278	172	9,917	520
1945.....	220	12	1,513	80	2,964	157	1,190	63	29	2	2,993	159	8,909	473
1946.....	173	9	1,353	71	2,594	137	887	47	23	1	2,826	149	7,856	414
1947.....	189	10	1,389	72	2,449	127	677	35	23	1	2,818	147	7,545	392
1948.....	204	10	1,229	64	2,400	124	729	38	15	1	2,578	134	7,155	371
1949.....	176	9	1,346	67	2,244	113	600	30	15	1	1,817	91	6,198	311
1950.....	151	7	1,337	65	2,394	116	667	32	16	1	1,853	90	6,418	311

The number of thefts and the cases of wilful damage to property have tended to decrease since 1930. On the other hand, the serious offences of burglary, and breaking and entering have increased in the same period.

26.—Juvenile Delinquents classified by Offences, Five-Year Intervals, 1925-50

(Exclusive of Newfoundland)

NOTE.—See headnote to Table 22, p. 309.

Offence	1925 ¹	1930	1935	1940	1945	1950
Manslaughter and murder.....	—	—	—	2	—	—
Rape, carnal knowledge and incest.....	—	5	8	12	14	4
Indecent assault.....	37	49	29	32	30	36
Aggravated assault and wounding.....	12	11	60	24	27	26
Common assault.....	118	101	100	99	115	59
Endangering life on railway.....	40	31	48	28	30	12
Other offences against the person.....	5	2	3	11	4	14
Burglary, breaking and entering.....	798	944	1,022	1,245	1,494	1,310
Robbery.....	17	7	9	16	19	27
Theft and receiving stolen goods.....	3,386	3,662	3,548	3,037	2,944	2,373
Embezzlement, false pretences and fraud.....	12	24	14	21	20	21
Arson.....	18	45	29	26	27	49
Wilful damage to property.....	983	927	716	736	1,163	618
Forgery and offences against currency.....	7	17	12	8	29	16
Immorality.....	177	82	45	186	112	126
Various other offences.....	3,129	2,518	2,036	2,948	2,881	1,727
Totals.....	8,739	8,425	7,679	8,431	8,909	6,418

¹ Figures include 852 cases adjourned *sine die*.

Sex and Age of Delinquents.—Juvenile delinquents are predominantly boys. The ratio between boys and girls has remained much the same over a long period and for all offences, in 1950, it was approximately one girl to nine boys.

There were 121 boys of seven and eight years of age found to be delinquent in 1950, though more than one-half of the delinquent boys were 14 and 15 years of age, and 67·3 p.c. were 13 years of age or over.

The ages of 67·5 p.c. of the delinquent girls in 1950 were 14 and 15 years, and 81·7 p.c. were 13 years of age or over. No girls were brought before the courts for delinquencies in Saskatchewan and Prince Edward Island in 1950, and none under the age of 12 in Manitoba and Alberta.

27.—Percentages of Delinquent Boys and Girls, by Age Groups, 1949 and 1950

(Exclusive of Newfoundland)

NOTE.—See headnote to Table 22, p. 309.

Age Group	1949			1950		
	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
7-12 years.....	33·8	21·1	32·6	31·6	17·5	30·2
13-15 years.....	64·9	78·6	66·2	67·3	81·7	68·7
Not given.....	1·3	0·3	1·2	1·1	0·8	1·1
Totals.....	100·0	100·0	100·0	100·0	100·0	100·0

Education and Employment.—Backwardness in school work may be due to many causes: illness, disturbed family situations, overcrowding in the home or other factors. Presuming that six years is the age for entering Grade I, 48·6 p.c. of the boys and 55·6 p.c. of the girls who were delinquent in 1950 were two years or more below the normal grade for their age, while 3·2 p.c. of the girls and boys were a year or more above it.

Well over one-half of the delinquent boys were in Grades V to VIII, and one-half of the girls had attained Grades VI to VIII, while 12.7 p.c. of the boys and girls were known to have attended high school for some period of time.

28.—Age, Sex and School Grade of Delinquent Boys and Girls, 1950

(Exclusive of Newfoundland)

(B=Boys; G=Girls)

Age	School Grades																Total De- linquents	
	Elementary										Second- ary		Auxili- ary		Not Given			
	I-IV		V		VI		VII		VIII									
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G		
7 years.....	28	3	—	—	—	—	—	—	—	—	—	—	—	—	2	2	30	5
8 ".....	85	4	3	—	—	—	—	—	—	—	—	—	—	—	3	—	91	4
9 ".....	167	4	14	—	1	—	—	—	—	—	—	—	1	—	14	1	197	5
10 ".....	194	15	87	4	22	—	—	—	—	—	—	—	1	—	19	1	324	20
11 ".....	174	11	126	9	102	2	20	—	—	—	—	—	4	—	24	2	450	24
12 ".....	142	14	168	12	192	13	117	8	32	2	3	—	14	2	63	4	731	55
13 ".....	80	7	156	15	193	14	226	21	157	18	29	6	22	4	75	7	938	92
14 ".....	55	16	108	11	190	33	292	37	304	41	211	31	40	6	116	14	1,316	189
15 ".....	63	11	97	11	203	24	272	50	326	55	469	61	35	8	164	27	1,629	247
Not given.....	2	1	5	—	5	—	8	1	3	2	4	—	1	—	38	1	66	5
Totals.....	990	86	764	62	908	86	936	117	822	118	716	98	118	20	518	59	5,772	646

In 1950, 13.4 p.c. of the delinquent boys and 23.2 p.c. of the delinquent girls were no longer attending school. Their ages varied and were from 11 years or over but the majority were from 14 to 15 years of age. More than 50 p.c. of these boys and girls had left school from Grades V to VIII.

Nearly a third (31.7 p.c.) of the delinquent boys who had left school were idle. Of those reported as gainfully employed 43.4 p.c. were occupied in transportation and communication concerns or were factory workers, while another 23.1 p.c. were day-labourers.

Of the girls no longer at school, 42.7 p.c. were unemployed and, of those reported as employed, 40.4 p.c. were in domestic service.

Birthplaces of Juvenile Delinquents and their Parents.—Canada was the country of birth of 6,142 or 95.7 p.c. of the juvenile delinquents in 1950. Thirty-four delinquents were born in other Commonwealth countries, 19 in the United States, 29 in Europe and one in China. Ontario was the home province of 68.7 p.c. of the 83 delinquents born outside this country.

Both parents of 69.3 p.c. of the delinquent children in 1950 were born in Canada, while 14.2 p.c. had one parent and 11.8 p.c. had both parents born in other countries. Of those born outside Canada the fathers outnumbered the mothers two to one. To evaluate these figures, comparisons should be made with population ratio of children from 7-16 years of age whose parents were Canadian-born to those whose parents were born elsewhere.

Home Circumstances.—The type of home from which a delinquent comes and the amount and quality of parental supervision he receives are important factors in a child's behaviour. The statistics for the marital status and occupation of the parents, which reflect home conditions, are worth recording though it is impossible to draw definite conclusions from them. For every five juveniles who appeared in court, four lived in an urban centre and one in a rural district. The

parents of 73.4 p.c. of the delinquents were reported as living together in 1950. In the case of 2.4 p.c. of the children, one parent was a stepmother or stepfather. Homes broken by separation of the parents, divorce or death were the background from which 19.9 p.c. of these boys and girls came. The mothers of 8.3 p.c. of the juvenile delinquents were employed other than in the home and, in the case of another 2.7 p.c., the mothers were dead. The fathers of 6.9 p.c. of the cases were deceased.

Source of Complaint.—Not all economic, social and racial groups commonly use the services of a court; nevertheless, some parents do turn to the court for advice and assistance in handling difficult children. In the case of 6.5 p.c. of the children brought to court in 1950, the complaint was laid by a parent or relative, but by far the largest proportion (70.2 p.c.) of charges were laid by the police. School authorities instigated 4.6 p.c. of the complaints, probation officers another 5.2 p.c., other persons 5.1 p.c. and the source of 8.4 p.c. was not stated.

Repeaters.—Experience, which dispels or increases resentment to authority, may be a factor in encouraging or deterring repeaters. Some of the responsibility for the attitude that is built up, be it good or bad, rests with the police, the probation officer, the staff of the detention home and the judge. The recollection of how he was picked up the first time, how he was handled while awaiting hearing, the opinion of those in whose care he was placed during the process of readjustment, all make an impression on a child.

Over the ten-year period, 1941-50, approximately one in every four children brought before the court failed to heed the first warning and made at least a second appearance. In 1950, 78.5 p.c. of the delinquent children appeared before the court for the first time, 13.9 p.c. were second offenders, 4.9 p.c. third, while 2.7 p.c. were dealt with by the courts four or more times.

29.—First Offenders and Repeaters of Major Offences, 1941-50

(Exclusive of Newfoundland)

NOTE.—See headnote to Table 22, p. 309.

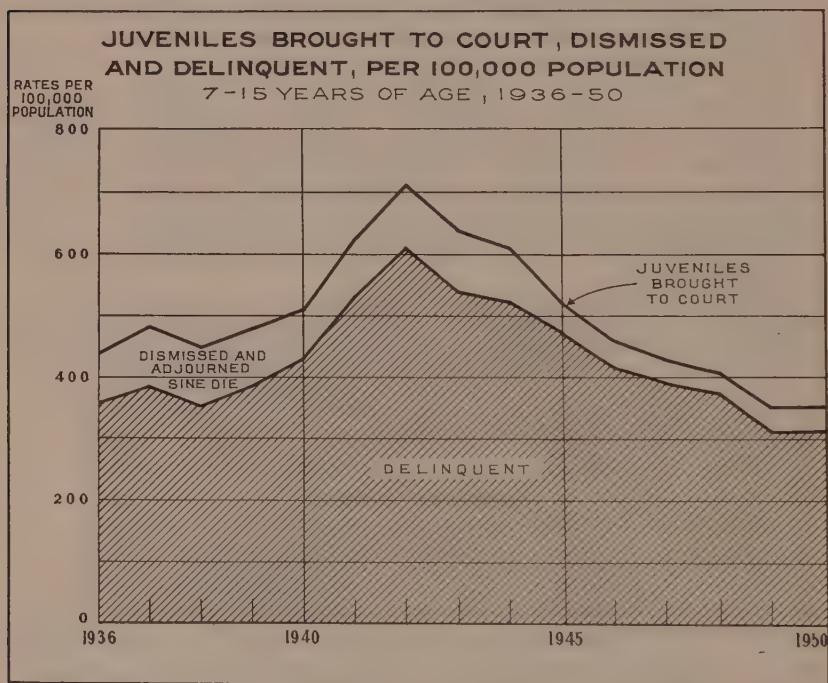
Year	Total Delinquents	First Offenders	Repeaters					Percentage of Total Delinquents
			Second	Third	Fourth	Fifth or More	Total	
	No.	No.	No.	No.	No.	No.	No.	
1941.....	6,204	4,356	994	396	199	259	1,848	29.8
1942.....	6,920	5,577	669	348	144	182	1,343	19.4
1943.....	6,494	4,831	865	386	183	229	1,663	25.6
1944.....	6,529	4,665	943	429	221	271	1,864	28.6
1945.....	5,758	4,231	812	337	137	241	1,527	26.5
1946.....	4,949	3,430	799	344	155	221	1,519	30.7
1947.....	4,683	3,376	673	329	138	167	1,307	27.9
1948.....	4,591	3,340	674	266	147	164	1,251	27.3
1949 ¹	6,198	5,195	603	208	109	83	1,003	16.2
1950 ¹	6,418	5,039	892	314	140	33	1,379	21.5

¹ Includes minor offences.

Disposition of Cases.—The disposition of cases by the various courts depends on the practices within the courts and on the facilities for court supervision, for institutional care and other services for delinquent children. In 1950, 92.4 p.c. of

all juvenile cases were heard by judges of juvenile courts and the remainder by magistrates or justices of the peace. Only 2.7 p.c. of the cases were dismissed, showing that most complaints were justified.

Some courts consider children whose cases are adjourned *sine die* as delinquent, but others do not. For the sake of uniformity, the latter point of view is maintained by the Dominion Bureau of Statistics. And yet, in estimating the total problem of juvenile delinquency, cases adjourned *sine die* have to be taken into account, for when the number of cases dealt with in this way increases the number of those declared delinquent decreases, as seen by Table 30 which shows proportionately the disposition of cases at five-year intervals from 1925 to 1950.



30.—Juveniles Before the Court, Dismissed and Delinquent, Five-Year Intervals, 1925-50

(Exclusive of Newfoundland)

NOTE.—See headnote to Table 22, p. 309.

Item	1925		1930		1935		1940		1945		1950	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Before the court.....	8,993	100.0	10,905	100.0	9,397	100.0	9,976	100.0	9,756	100.0	7,304	100.0
Dismissed.....	254	2.8	310	2.8	187	2.0	239	2.4	182	1.7	197	2.7
Adjourned <i>sine die</i>	852	9.5	2,170	19.9	1,531	16.3	1,306	13.1	685	7.0	689	9.4
Delinquent.....	7,887	87.7	8,425	77.3	7,679	81.7	8,431	84.5	8,909	91.3	6,418	87.9

In the past decade, the dispositions of cases have gradually increased in severity (with the exception of 1950), as shown in Table 31. As the years progressed, a greater proportion of delinquents, or their parents, were fined or asked to make restitution for damages and losses. Training schools received a larger share of commitments, while in fewer cases the final disposition was suspended or the child merely reprimanded. However, corporal punishment was resorted to in appreciably fewer cases—in 1950 only three boys were strapped.

With the present-day interest in probation as a means of giving guidance and control, preferably in the child's own home in order to conserve and strengthen the family ties where possible, it is interesting to note that the number of cases handled in this way has remained fairly constant.

31.—Disposition of Delinquents, by Types of Sentence, 1941-50

(Exclusive of Newfoundland)

NOTE.—See headnote to Table 22, p. 309.

Year	Reprimanded		Probation of Court		Protection of Parents		Fined or Made Restitution		Detained Indefinitely		Sent to Training School		Final Disposition Suspended		Corporal Punishment	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1941.....	422	4.1	5,024	48.7	130	1.3	1,397	13.6	139	1.3	1,332	12.9	1,831	17.8	35	0.3
1942.....	432	3.7	3,069	26.1	83	0.7	2,303	19.6	117	1.0	1,454	12.4	4,249	36.1	51	0.4
1943.....	464	4.5	2,854	27.7	140	1.4	1,962	19.0	101	1.0	1,401	13.6	3,322	32.3	52	0.5
1944.....	395	4.0	2,780	28.0	112	1.1	2,547	25.7	92	1.0	1,376	13.9	2,551	25.7	64	0.6
1945.....	352	3.9	2,698	30.3	109	1.2	2,367	26.6	65	0.7	1,348	15.1	1,947	21.9	23	0.3
1946.....	233	3.0	2,291	29.2	67	0.8	1,854	23.6	53	0.7	1,180	15.0	2,150	27.4	28	0.3
1947.....	182	2.4	2,273	30.1	69	0.9	2,116	28.1	40	0.5	1,108	14.7	1,733	23.0	24	0.3
1948.....	248	3.4	2,201	30.8	55	0.8	1,850	25.8	47	0.7	1,120	15.6	1,622	22.7	12	0.2
1949.....	196	3.2	2,141	34.6	98	1.6	1,655	26.7	39	0.6	1,036	16.7	1,029	16.6	4	0.1
1950.....	354	5.5	2,392	37.3	94	1.4	1,148	17.9	26	0.4	1,144	17.8	1,257	19.6	3	0.1

Section 4.—Crime and Delinquency in Newfoundland

The Criminal Code of Canada was proclaimed in Newfoundland Aug. 1, 1950. Statistics of criminal and other offences and delinquencies will be uniform with those of other provinces in 1951 and will appear in the report for that year. Legislation has been passed establishing district courts, and magistrates have been appointed in the seven judicial districts of Grand Falls-White Bay, Bonavista-Twillingate, Trinity-Conception, St. John's East, St. John's West, Burin Burgeo and Humber-St. George's.

The city of St. John's is policed by the Newfoundland Constabulary. On Aug. 1, 1950, the Royal Canadian Mounted Police took over the policing of the remainder of the Province, including Labrador, and absorbed into their force about 60 Rangers who previously had patrolled the rural areas under the Newfoundland Department of Natural Resources.

Juvenile Delinquency.—The following extracts from the Report of the Judge of the St. John's Juvenile Court for the year ended Mar. 31, 1950, give some idea of the problem of juvenile delinquency in that Province.

"During the year complaints of delinquency were made in 127 cases (117 boys and 10 girls) in this Court as compared with 147 for the preceding year. . . . The chief offences which brought the juvenile boys into court were stealing, breaking and entering with stealing, damage to property, and truancy, while the complaints against the girls were mainly for assault and theft.

"The number of cases dealt with in a more or less formal manner has again shown a decrease. The probable reasons are as follows:

- (a) Commitments to the care and custody of the Director of Child Welfare of children from homes in which they could not receive even the semblance of proper guidance and their removal by him have prevented other children in the neighbourhood from being led along a course of behaviour unacceptable to society;
- (b) more guidance has been given by the Juvenile Court to children and their guardians as soon as its attention is focused on their behaviour in one way or another;
- (c) the Probation Officers of the Court have followed up and given friendly advice when the need was made apparent to them;
- (d) the efforts of the Domestic Workers of the Division of Child Welfare over recent years are beginning to show effects . . . During the year the Worker dealt with the cases of 17 girls, achieving considerable success without actual court action.
- (e) the growth of improved community services, such as clubs, camps, brigades, etc.

"It is particularly gratifying to note that the number of complaints of damage to property was less than one-half that of last year.

"Probation continued to be the most common disposition of the court and in many cases where complaints were dismissed or disposed of by suspended sentence the court recommended that a friendly interest be shown in the child's activities for a certain period.

" . . . About 74 p.c. of juveniles appearing in court were from one to six grades below the normal [school] grade for their respective ages."

Section 5.—Police Forces

The Police Forces operating in Canada are organized under three groups. (1) the Federal Force, which is the Royal Canadian Mounted Police and whose operations cover a very wide field in addition to purely police work; (2) Provincial Police Forces—the Provinces of Ontario and Quebec have organized their own Provincial Forces, but the other provinces engage the services of the Royal Canadian Mounted Police to perform parallel functions within their boundaries; (3) Municipal Police—every city of reasonable size employs its own police organization which is paid for by the local taxpayers and which attends to purely police matters within the borders of the municipality concerned.

Subsection 1.—The Royal Canadian Mounted Police*

The Royal Canadian Mounted Police is a Civil Force maintained by the Federal Government. It was organized in 1873 as the North West Mounted Police, whose duties were confined to what was then known as the North West Territories. By 1904, the work of the Force received signal recognition when the prefix "Royal" was bestowed upon it by King Edward VII. In 1905, when Alberta and Saskatchewan were constituted Provinces, an arrangement was made whereby the Force continued to discharge its duties as formerly, each province making a contribution towards defraying the cost. This was continued until 1917.

In 1918, the Royal North West Mounted Police was assigned the duty of enforcing Dominion legislation for the whole of Canada west of Port Arthur and Fort William. Soon after the end of World War I an extension of governmental

* Revised by Commissioner L. H. Nicholson, M.B.E., of the Royal Canadian Mounted Police.

activities made it obvious that the enforcement of Dominion statutes throughout Canada must be the responsibility of a Dominion Force and, therefore, the jurisdiction of the Royal North West Mounted Police was extended to the whole of Canada early in 1920. In that year, the name of the Force was changed to the Royal Canadian Mounted Police and the former Dominion Police with Headquarters at Ottawa, whose duties were largely connected with guarding public buildings in that city and the Canadian Government dockyards at Halifax, N.S., and Esquimalt, B.C., were absorbed by the Royal Canadian Mounted Police.

Organization.—The Force is controlled and administered by a Minister of the Crown (the Minister of Justice). Its Commissioner has the rank and status of a Deputy Minister. Officers are commissioned by the Crown and for many years have been selected from serving non-commissioned officers. The Force is divided into 15 Divisions, including the Marine Division with Headquarters at Halifax, N.S. There are 602 detachments distributed over the entire country. Its land force transportation consists of 1,023 motor-vehicles, most of which are fitted with two-way radio sets connecting with wireless stations operated by the Force. Such stations operate in both Western and Eastern Canada, including the Quebec-United States boundary area. The Aviation Section of the Force operates eight aircraft of various types. The present (Mar. 31, 1952) strength of the Force is approximately 4,517 officers and men, with a reserve strength of about 342. The reserve strength is located chiefly in the larger cities where men can be congregated easily and where instruction can be given in the evenings.

The Marine Division has a total strength of 203 officers and men and operates 26 ships of various kinds, the majority of which are located on the Atlantic Coast and on the Great Lakes. The R.C.M.P. schooner *St. Roch*, which has been used as a floating detachment in the Far North and as a supply ship to isolated detachments, is the only ship to navigate the Northwest Passage from east to west and from west to east. It was recently transferred from Esquimalt, B.C., to Halifax, N.S., via the Panama Canal, the only vessel to have circumnavigated the North American Continent.

The Personnel Branch of the R.C.M.P. has officers in each Division across the country. Great care is taken in the selection of recruits.

Duties.—The Royal Canadian Mounted Police has the responsibility for enforcing federal laws throughout Canada and is specially empowered to deal with infractions against smuggling by sea, land and air. It also enforces the provisions of the Excise Act, and is responsible for the suppression of traffic in narcotic drugs. In all, the Force has responsibility in over 50 Federal Government Acts including the Indian Act. It also assists many departments of the Federal Government in administrative duties and is responsible for the protection of government buildings and property. It is the sole police force operating in the Northwest and Yukon Territories. Furthermore, it undertakes secret and security services for the Federal Government. In addition to its federal duties, agreements have been made with the Provinces of Alberta, Saskatchewan, Manitoba, Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and British Columbia whereby the services of the Royal Canadian Mounted Police can be secured to enforce provincial laws and the Criminal Code in rural districts upon payment for such services. The agreement with Saskatchewan has been in existence for 23 years and those with the

Provinces of Alberta, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island for 19 years. The agreements were entered into with the Provinces of Newfoundland and British Columbia in August 1950, and the police forces of those provinces were absorbed by the Royal Canadian Mounted Police. The Force has agreements also for policing more than 120 urban centres within the provinces mentioned.

Other Services.—The services of R.C.M.P. experts in fingerprints, crime-index information, examination of firearms and questioned documents are available to all other police forces in Canada. A *Police Gazette*, issued monthly and containing instructional articles on police work as well as the latest information on persons wanted and missing persons, is sent to all police forces across the country. The R.C.M.P. has two Police Colleges which are open to selected personnel from other police forces in Canada and to a more limited number of those outside its boundaries.

In recent years the Force has given special attention to crime prevention, as well as detection, and has done much to assist the youth of Canada in developing a healthful outlook towards the police, law, order and responsible citizenship. Personal contacts with over a million young people have been made through school and youth groups supervised by churches and service clubs.

A book entitled *Law and Order in Canadian Democracy*, containing twenty essays has been issued by the Force and is available through the Queen's Printer, Ottawa.

Subsection 2.—Provincial Police Forces*

Quebec Provincial Police Force.—The Quebec Provincial Police Force is responsible for upholding law and order over the whole territory of the Province, from the provincial boundary between Ontario and Quebec to the Magdalen Islands in the Gulf of St. Lawrence.

This Force, composed of about 800 men, is in charge of a Director, who acts under direct orders from and is responsible to the Attorney-General of the Province.

To facilitate operations, the territory is divided into two almost equal parts designated as the District of Montreal and the District of Quebec. The Director has his office at Montreal and an Assistant Director at the city of Quebec. Working under these Directors are two Deputies and an Inspector General.

In each District the Police Force is divided into three sections: the detective corps, the constabulary and the traffic officers; each section is in charge of a captain supported by a number of lieutenants and sergeants. This Police Force, which has enjoyed an enviable reputation for the successful policing of Quebec's highways and for its efficiency in solving crimes, has been in course of reorganization for the past three years. During this time, the highway motorcycle patrol has been gradually replaced by a fleet of automobiles which have proved much more efficient, especially during the winter months.

* Revised by Geo. A. Shea, O.B.E., Secretary-Treasurer, Chief Constables' Association of Canada.

A province-wide frequency modulation radio-communication system has been established at Montreal. A main station, operating on the top of Mount Royal, directs radio-equipped cars within a radius of between 60 and 80 miles around Montreal, and similar stations operating from the cities of Quebec and Three Rivers direct the mobile units operating in their respective areas. Substations operate at each of the eight bridges giving access to or exit from the city of Montreal and a number of cars, all equipped with frequency modulation three-way radio units, patrol the surrounding country day and night.

Ontario Provincial Police.—The Ontario Provincial Police is maintained by the Government of the Province of Ontario under the Attorney-General's Department. The Force is responsible for law enforcement in the rural and unorganized parts of the Province, and in certain municipalities by contract.

The development of the Force from its beginnings in the early years of Confederation to passing of the Police Act, 1946, is outlined in the 1950 Year Book, pp. 332-333.

The Force, with a strength of approximately 1,167 in 1951, consists of a General Headquarters at Toronto and 16 Districts with headquarters at Chatham, London, Dundas, Niagara Falls, Aurora, Mount Forest, Barrie, Peterborough, Belleville, Perth, Cornwall, Haileybury, Sudbury, Cochrane, Port Arthur and Kenora. Each District has detachments adequate to meet law-enforcement requirements. A Criminal Investigation Branch of the Force, under the command of a Chief Inspector, is maintained at Toronto. This Branch investigates crimes of a major nature. The installation of one of the largest police frequency-modulation radio systems in the world has placed at the command of the police a most efficient method of combating every type of lawlessness.

There are in operation 49 fixed stations and 370 two-way radio cruisers. The 250-watt stations at District Headquarters are open 24 hours daily and many of the cars are on continuous round-the-clock patrols.

Up to July 1951, 92 municipalities had availed themselves of the provisions of the Police Act for the policing of their municipalities by the Ontario Provincial Police.

Subsection 3.—Municipal Police Statistics

Police Statistics were submitted for the year 1950 by Chiefs of Police in 205 urban centres, 13 district communities and two unorganized districts of 4,000 population or over. For the first time the statistics are included of the Newfoundland Constabulary, who police the city of St. John's.

The population figures used in table 32 are those of the 1941 census, except where otherwise designated. They are lower than the 1950 estimated population by as much as 1 p.c. in Prince Edward Island to 16 p.c. in Ontario. Any attempt therefore to determine the number of police per population would result in an over-estimation.

32.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over with Totals for Urban Centres of 4,000 Population or Over, 1950

NOTE.—Cities and towns of 4,000 or over incorporated since 1941 have been included.

Province and Urban Centre	Population 1941	Police on Force	Offences Known to the Police	Prosecutions	Arrests	Summonses
	No.	No.	No.	No.	No.	No.
Newfoundland—						
St. John's.....	44,603 ¹	171	6,753	5,291	1,520	3,461
Totals of 10,000 or Over.....	44,603¹	171	6,753	5,291	1,520	3,461
Totals of 4,000 or Over.....	57,866¹	192	7,202	5,697	1,690	3,697
Prince Edward Island—						
Charlottetown.....	14,821	15	750	728	656	72
Totals of 10,000 or Over.....	14,821	15	750	728	656	72
Totals of 4,000 or Over.....	19,855	22	1,180	1,137	976	161
Nova Scotia—						
Halifax.....	70,488	117	7,863	4,596	2,667	1,598
Sydney.....	28,305	36	3,522	2,801	1,862	—
Glace Bay.....	25,147	21	921	861	756	85
Dartmouth.....	10,847	13	738	518	235	283
Truro.....	10,272	7	583	525	494	41
Totals of 10,000 or Over.....	145,059	194	13,627	9,301	6,014	2,007
Totals of 4,000 or Over.....	211,651	236	18,877	12,417	7,695	3,278
New Brunswick—						
Saint John.....	51,741	72	6,654	3,934	2,214	4,341
Moncton.....	22,763	37	2,380	1,458	832	626
Fredericton.....	10,062	22	1,216	846	638	315
Totals of 10,000 or Over.....	84,566	131	10,250	6,238	3,684	5,282
Totals of 4,000 or Over.....	111,200	158	11,882	7,687	4,618	5,804
Quebec—						
Montreal.....	903,007	1,829	264,644	221,516	24,497	197,019
Quebec.....	150,757	292	16,895	8,642	2,931	8,642
Verdun.....	67,349	68	7,568	5,028	1,533	462
Three Rivers.....	42,007	91	2,491	2,432	2,087	404
Sherbrooke.....	35,965	58	3,525	3,390	511	3,020
Hull.....	32,947	41	6,797	5,679	926	4,661
Outremont.....	30,751	49	7,308	7,308	425	2,369
Westmount.....	26,047	42	11,289	6,710	646	6,064
Jacques-Cartier.....	21,500 ²	6	4,089	1,104	161	357
Shawinigan Falls.....	20,325	36	1,762	1,683	120	166
Lachine.....	20,051	25	410	335	255	55
St. Hyacinthe.....	17,798	26	279	821	82	59
Valleyfield.....	17,052	29	463	160	137	23
Chicoutimi.....	16,040	23	485	485	140	—
Granby.....	14,197	17	244	244	53	191
Jonquière.....	13,769	16	2,074	262	262	—
St. Jean.....	13,646	17	147	19	19	—
Joliette.....	12,749	23	3,446	3,328	31	3,299
Thetford Mines.....	12,716	15	1,890	244	221	23
Sorel.....	12,251	17	468	361	96	—
Lévis.....	11,991	13	583	443	140	6
Cap-de-la-Madeleine.....	11,961	19	1,802	173	125	48
St. Jérôme.....	11,329	14	1,071	177	135	42
Drummondville.....	10,555	17	1,282	695	608	87
Totals of 10,000 or Over.....	1,526,760	2,783	341,012	271,239	36,141	226,997
Totals of 4,000 or Over.....	1,725,992	3,086	365,531	285,977	38,663	235,426

¹ 1945 population.

² 1950 population.

32.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over with Totals for Urban Centres of 4,000 Population or Over, 1950—continued

Province and Urban Centre	Population 1941	Police on Force	Offences Known to the Police	Prosecutions	Arrests	Summonses
	No.	No.	No.	No.	No.	No.
Ontario—						
Toronto.....	667,457	1,227	428,651	442,303	28,923	406,802
Hamilton.....	166,337	256	91,682	87,320	5,911	81,409
Ottawa.....	154,951	238	23,702	16,709	3,673	12,039
Windsor.....	105,311	182	14,975	8,636	3,981	4,658
London.....	78,264	105	10,076	7,902	2,844	5,048
Kitchener.....	35,657	40	14,523	13,719	2,243	4,443
Sudbury.....	32,203	38	8,161	6,686	1,015	1,644
Brantford.....	31,948	36	12,068	6,195	886	5,924
Fort William.....	30,585	42	3,128	2,659	1,021	2,696
St. Catharines.....	30,275	44	8,339	6,190	1,374	567
Kingston.....	30,126	38	4,542	3,717	537	5,658
Timmins.....	28,790	26	2,171	1,941	1,674	1,321
Oshawa.....	26,813	36	6,924	6,195	721	2,918
Sault Ste. Marie.....	25,794	32	3,535	3,189	2,168	334
Peterborough.....	25,350	35	5,414	3,639	503	2,141
Port Arthur.....	24,426	36	2,863	2,502	683	567
Guelph.....	23,273	28	2,373	2,399	397	1,432
Niagara Falls.....	20,589	36	1,940	1,250	662	1,346
Sarnia.....	18,734	30	2,294	1,829	323	448
Chatham.....	17,369	27	2,425	1,990	207	2,338
St. Thomas.....	17,132	19	1,085	735	1,014	991
Stratford.....	17,038	16	3,686	3,356	1,028	591
Belleville.....	15,710	22	3,347	2,005	296	362
North Bay.....	15,599	17	1,900	1,619	298	668
Galt.....	15,346	13	4,044	758	222	239
Cornwall.....	14,117	19	1,182	976	169	1,513
Owen Sound.....	14,002	15	1,053	1,013	391	1,313
Welland.....	12,500	22	2,200	1,715	48	1,484
Woodstock.....	12,461	15	3,466	3,466	543	322
Forest Hill.....	11,757	23	1,900	1,560	688	251
Brockville.....	11,342	15	2,761	2,436		
Pembroke.....	11,159	11	1,608	1,343		
Totals of 10,000 or Over.....	1,742,415	2,739	678,018	647,952	66,343	567,111
Totals of 4,000 or Over.....	2,030,892	3,046	721,258	678,458	72,347	590,035
Manitoba—						
Winnipeg.....	221,960	239	77,685	75,685	5,843	70,149
St. Boniface.....	18,157	20	2,949	1,111	215	1,073
Brandon.....	17,383	15	1,325	713	333	380
Totals of 10,000 or Over.....	257,500	274	81,959	77,509	6,391	71,602
Totals of 4,000 or Over.....	287,354	403	84,590	78,992	6,871	72,389
Saskatchewan—						
Regina.....	58,245	71	9,993	9,328	1,579	2,977
Saskatoon.....	43,027	52	7,985	2,502	874	1,546
Moose Jaw.....	20,753	21	2,365	2,166	415	776
Prince Albert.....	12,508	16	2,922	1,253	543	411
Totals of 10,000 or Over.....	134,533	160	23,265	15,249	3,411	5,710
Totals of 4,000 or Over.....	160,639	188	26,635	17,053	3,876	7,059
Alberta—						
Edmonton.....	93,817	164	14,964	7,173	3,811	3,362
Calgary.....	88,904	144	13,809	10,386	5,338	4,399
Lethbridge.....	14,612	20	5,269	5,024	670	3,915
Medicine Hat.....	10,571	13	748	476	176	301
Totals of 10,000 or Over.....	207,904	341	34,790	23,059	9,995	11,977
Totals of 4,000 or Over.....	207,904	341	34,790	23,059	9,995	11,977

32.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over with Totals for Urban Centres of 4,000 Population or Over, 1950—concluded

Province and Urban Centre	Population 1941	Police on Force	Offences Known to the Police	Prosecutions	Arrests	Summons
	No.	No.	No.	No.	No.	No.
British Columbia—						
Vancouver.....	275,353	610	50,180	45,927	12,943	42,748
Victoria.....	44,068	89	21,804	8,972	885	8,087
New Westminster.....	21,967	34	8,066	6,324	979	352
Totals of 10,000 or Over.....	341,388	733	80,050	61,223	14,807	51,187
Totals of 4,000 or Over.....	419,461	859	94,425	74,184	19,611	59,241
Grand Totals of Urban Centres of 10,000 Population or Over.....	4,499,549	7,541	1,270,474	1,117,789	148,962	945,406
Grand Totals of Urban Centres of 4,000 Population or Over.....	5,232,814	8,531	1,366,370	1,184,661	166,342	989,067

Section 6.—Penitentiaries and Reformatories

Penal institutions may be classified under four headings: (1) penitentiaries, with slow turnover since prisoners have long sentences; (2) reformatories, also with rather slow turnover; (3) common gaols, where the turnover is extremely rapid; and (4) training schools, where pupils have the advantage of long educational periods. If the average population for the year be taken as the average of the figures for inmates at the beginning and at the end of the year, and the number discharged as the turnover, the turnover in the years 1949 and 1950 was: in penitentiaries, 50 and 44 p.c.; in reformatories, 390 and 286 p.c.; in gaols, no less than 1,628 and 1,458 p.c.; and in training schools, 90 and 71 p.c., respectively. In considering these figures it should be borne in mind that the common gaol population changes from day to day and is made up partly of accused persons awaiting trial who may be either liberated or sent to a penitentiary or reformatory.

33.—Movement of Population in Penitentiaries, Reformatories, Gaols and Training Schools, 1947-50

Type of Institution and Item	1947	1948	1949	1950 ¹
	No.	No.	No.	No.
Penitentiaries—				
Inmates in custody at beginning of year....	3,362	3,752	3,851	4,260
Admitted during the year.....	1,908	1,867	2,382	2,445
Discharged during the year.....	1,518	1,768	2,008	1,965
In custody at end of year.....	3,752	3,851	4,225	4,740
Reformatories for Men—				
Inmates in custody at beginning of year....	2,436	2,612	2,939	2,556
Admitted during the year.....	8,732	11,230	12,199	7,937
Discharged during the year.....	8,589	10,903	11,989	7,765
In custody at end of year.....	2,579	2,939	3,149	2,728
Reformatories for Women—				
Inmates in custody at beginning of year....	192	248	264	230
Admitted during the year.....	370	832	861	367
Discharged during the year.....	373	816	873	400
In custody at end of year.....	189	264	252	197

¹For footnote, see end of table.

33.—Movement of Population in Penitentiaries, Reformatories, Gaols and Training Schools, 1947-50—concluded

Type of Institution and Item	1947	1948	1949	1950 ¹
	No.	No.	No.	No.
Common Gaols—				
Inmates in custody at beginning of year.....	4,185	4,171	4,530	5,625
Admitted during the year.....	66,279	69,463	77,729	85,062
Discharged during the year.....	66,304	69,115	77,295	84,697
In custody at end of year.....	4,180	4,519	4,964	5,990
Training Schools for Boys—				
Inmates in custody at beginning of year.....	1,340	1,308	1,365	1,614
Admitted during the year.....	1,336	1,391	1,189	1,220
Discharged during the year.....	1,368	1,334	1,158	1,172
In custody at end of year.....	1,308	1,365	1,396	1,662
Training Schools for Girls—				
Inmates in custody at beginning of year.....	508	491	516	680
Admitted during the year.....	502	431	595	493
Discharged during the year.....	517	406	559	478
In custody at end of year.....	493	516	552	695
Totals—				
Inmates in custody at beginning of year.....	12,023	12,582	13,465	14,965
Admitted during the year.....	79,127	85,214	94,955	97,524
Discharged during the year.....	78,669	84,342	93,882	96,477
In custody at end of year.....	12,481	13,454	14,538	16,012

¹ Changes in reporting of the following items were made in 1950: Penitentiaries—Newfoundland Penitentiary reported for the first time; Reformatories for Men—Oakalla Prison Farm previously classed as a reformatory changed to a gaol; and Training Schools statistics are given on fiscal-year basis, Apr. 1-Mar. 31, instead of Oct. 1-Sept. 31 as previously submitted.

Subsection 1.—Penitentiaries*

The Penitentiaries Branch of the Department of Justice is charged with the administration of the various penitentiaries of Canada. Seven institutions are included in the system, the two largest of which are at Kingston, Ont., and St. Vincent de Paul, Que. The other five are at Dorchester, N.B.; Prince Albert, Sask.; Stony Mountain, Man.; New Westminster, B.C.; and Collins Bay, Ont. While the penitentiary at St. John's, Nfld., is operated by provincial authority, the figures for inmates serving two-year or longer sentences are included for 1950 and 1951 in the following tables. During the year ended Mar. 31, 1951, the average daily population of these institutions was 4,700 and the total net cash outlay for the year was \$6,121,254 or \$3.57 per convict per diem, compared with 3,028 average daily population and \$2,689,059 total cash outlay or \$2.43 per convict per diem for 1941.

Females given penitentiary sentences in the different provinces are sent to the penitentiary at Kingston, Ont., where special quarters and staff are maintained for their detention and supervision. Female convicts in custody on Mar. 31, 1951, numbered 104 compared with 46 in 1941.

*Revised by the Commissioner of Penitentiaries, Department of Justice, Ottawa.

34.—Movement of Convicts in Penitentiaries, Years Ended Mar. 31, 1948-51

Item	1948	1949	1950 ¹	1951 ¹
	No.	No.	No.	No.
In Custody, Apr. 1.	3,752	3,851	4,260	4,740
Received—				
From gaols.....	1,580	1,874	2,017	1,981
By transfer.....	283	504	419	338
By cancellation of ticket-of-leave.....	4	4	9	15
Totals, Received.....	1,867	2,382	2,445	2,334
Discharged by—				
Expiry of sentence.....	1,089	1,135	1,142	1,391
Transfer.....	283	504	419	339
Ticket-of-leave.....	333	285	331	459
Deportation.....	12	—	—	—
Death.....	14	21	15	5
Pardon.....	31	44	40	49
Release to military authorities.....	4	—	—	—
Release on order of court.....	1	16	5	7
Return to provincial authorities.....	1	—	4	1
Instructions from Immigration Department.....	—	—	9	—
Sentence quashed.....	—	3	—	6
Totals, Discharged.....	1,768	2,008	1,965	2,257
In Custody, Mar. 31.	3,851	4,225	4,740	4,817

¹ Includes Newfoundland.35.—Summary Statistics *re* Convicts in Penitentiaries, at Mar. 31, 1948-51

Item	1948	1949	1950 ¹	1951 ¹
	No.	No.	No.	No.
Place of Birth—				
Canada.....	3,403	3,736	4,264	4,358
British Isles and possessions.....	167	173	157	144
Austria and Hungary.....	18	23	21	22
Italy.....	8	9	11	9
Poland.....	36	39	42	34
Russia.....	67	68	60	64
Other Europe.....	47	58	63	65
United States.....	91	99	110	110
Other countries.....	14	20	12	11
Marital Status—				
Single.....	2,360	2,568	2,863	2,937
Married.....	1,237	1,378	1,573	1,560
Widowed.....	103	133	130	135
Divorced.....	69	65	103	108
Separated.....	82	81	71	77
Sex—				
Male.....	3,777	4,140	4,650	4,713
Female.....	74	85	90	104
Age—				
Under 21 years.....	497	481	551	520
21 to 30 ".....	1,660	1,919	2,147	2,209
31 to 40 ".....	973	1,060	1,148	1,176
41 to 50 ".....	450	481	575	575
51 to 60 ".....	180	181	210	227
Over 60 ".....	91	102	109	110
Not stated.....	—	1	—	—
Totals.....	3,851	4,225	4,740	4,817

¹ Includes Newfoundland.

The Ticket-of-Leave System.—The parole system in Canada is legalized under the Ticket-of-Leave Act (R.S.C. 1927, c. 107) and is administered by the Minister of Justice. It is described in detail in the Year Book 1948-49, pp. 305-308.

Subsection 2.—Reformatories and Training Schools

A census of reformatories and training schools is taken at five-year intervals, the latest being for June 1, 1951. At that date there were 13 reformatory and corrective institutions of which four were for women and 26 training and industrial schools, 12 of which were for girls. Details regarding the inmates or pupils of these institutions were not available at the time of going to press.

Reports on movement of population are received yearly from penal institutions and training schools. These figures are given for the years 1947-50 in Table 33, pp. 322-323.

CHAPTER VIII.—EDUCATION AND RESEARCH

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—FORMAL EDUCATION*

Section 1.—Education in the Provinces

Education in Canada is the responsibility of the provinces. Each province has its own system, that of Quebec being a dual one. However, there are two clearly defined types: (1) the English tradition carried on in nine provinces and in the Protestant schools of Quebec and (2) the French tradition followed in the Roman Catholic schools of Quebec.

The English Tradition.—The system of education in each province is established by legislation and administered by a Department of the Provincial Government under a Minister of Education who is a member of the Cabinet and is responsible to the Legislature.

Each of the Atlantic Provinces has a Council of Public Instruction or Board of Education, an advisory group composed of the Premier, Minister of Education, Deputy Minister or Superintendent and certain other appointees. The Council in Newfoundland is made up of the Minister, the Deputy Minister and a Superintendent of Education for each of the four leading religious denominations.

Each Department of Education is concerned with the general administration of the public schools, the conduct of examinations, the certification of teachers, the registration of private schools and trade schools, public and travelling libraries, correspondence courses and also the direct management and control of teacher-training schools, vocational institutes and schools for the blind and the deaf.

* Except where otherwise indicated, this Part has been prepared in the Education Division, Dominion Bureau of Statistics.

Direct control and operation of the public schools is in the hands of local boards of school trustees, usually elected for terms of two or three years. They employ the teachers and administer the revenues received from provincial grants, local taxation and other minor sources. Any fees charged are for secondary education and are merely nominal except in Newfoundland where they take the place of taxation.

Elementary and secondary education extends over 12 or 13 years or grades depending on the province. The elementary grades terminate with Grade VIII and the secondary grades begin with Grade IX though there is a practical as well as a theoretical separation into three divisions: Primary (Grades 1 to VI); Intermediate (Grades VII to X); and Senior (Grades XI and XII or XIII). The elementary schools are known as public schools, the secondary schools as high schools. However, many public schools teach some secondary grades and in Prince Edward Island and Newfoundland all grades are taught in the public schools.

In the cities and in some smaller centres there are kindergarten classes for five-year-olds and a few for four-year-olds as part of elementary education. Most children begin Grade I at age six or early seven and many complete the eight grades in seven years. Attendance is compulsory from age seven or eight to age 14 with attendance to age 16 required of urban pupils in some provinces. Emphasis is on the fundamental subjects—reading, writing, arithmetic, health and social studies—with varying additions of science, arts and crafts, music, home economics and shopwork. Many pupils, particularly in rural areas, leave school at the end of elementary schooling and enter employment in agriculture or unskilled occupations.

Secondary education may extend over a period of four or five years. Courses and subjects of study are diversified. A student may choose the academic course leading to university entrance or select courses or subjects preparing for employment in agriculture, commerce or industry. A student may pass from secondary school into commerce or industry at any time during this period provided he or she is over the compulsory age limit.

Further training is open to the high-school graduate through normal school training of one year for elementary school teachers; specialized technical training extending up to two years in a technical institute—there is at least one such institute in every province; nurse-training school where training extends over three years; or university. University courses are available in all branches of arts, commerce, science, education, philosophy, medicine, theology, etc. Graduation with a first degree (B.A., B.Sc., etc.) requires four years, medicine requires six years and theology seven years. Post-graduate courses require another two or more years.

The French Tradition.—The Quebec Department of Public Instruction is represented in the Cabinet by the Provincial Secretary. Although the Superintendent of Public Instruction is the head of the Department, a Roman Catholic Committee and a Protestant Committee, in charge of the education of Roman Catholics and Protestants, respectively, constitute the Council of Education which formulates policy and superintends the administration of all educational matters. The Council, however, has no authority over many special and technical schools that come directly under various Government Departments. The Protestant schools follow the English tradition already described; the Roman Catholic schools follow the French tradition.

From the very beginning boys are separated from girls. Both sexes follow through the Primary Grades, I to VII. The girls may then take the Intermediate Grades, VIII and IX, and thence enter a regional household science school, begin a four-year course in normal school or enter a superior school where a two-year course leads to a school of fine arts, a commercial course or a nurse-training course.

At the end of the fifth year a boy may enter a classical college for an eight-year course ending with a baccalaureate degree which is prerequisite for entrance to a professional course in university or he may continue on to the end of the primary course and then spend two years in the complementary course. From this point he may enter a technical school or any one of four sections of the two-year superior course—commercial, scientific, agriculture, technical or pre-normal school. The latter leads to entrance to a normal school, the others lead to specialized schools and advanced courses in technical schools or, after another year of preparatory work, to the higher schools of applied science, commerce and agriculture affiliated with the universities.

The boy who neither enters the classical college nor goes on to the complementary course may go directly from the primary course to a trade-school or one of the regional agriculture schools. These schools offer two-year terminal courses.

Section 2.—Education in the Territories

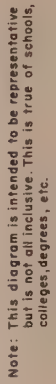
The Northwest Territories.—Education in the Northwest Territories is carried on under authority of the Northwest Territories Act and the Ordinances thereunder and the Indian Act and the Regulations thereunder. The Territorial Government operates day schools at Fort Smith, Hay River, Fort Resolution and Fort Simpson for the education of Whites and those of mixed blood residing in the Northwest Territories. The Indian Affairs Branch of the Department of Citizenship and Immigration operates day schools for Indians at Fort Norman, Fort McPherson, Arctic Red River, Fort Franklin, Fort Rae, Rocher River and Fort Good Hope.

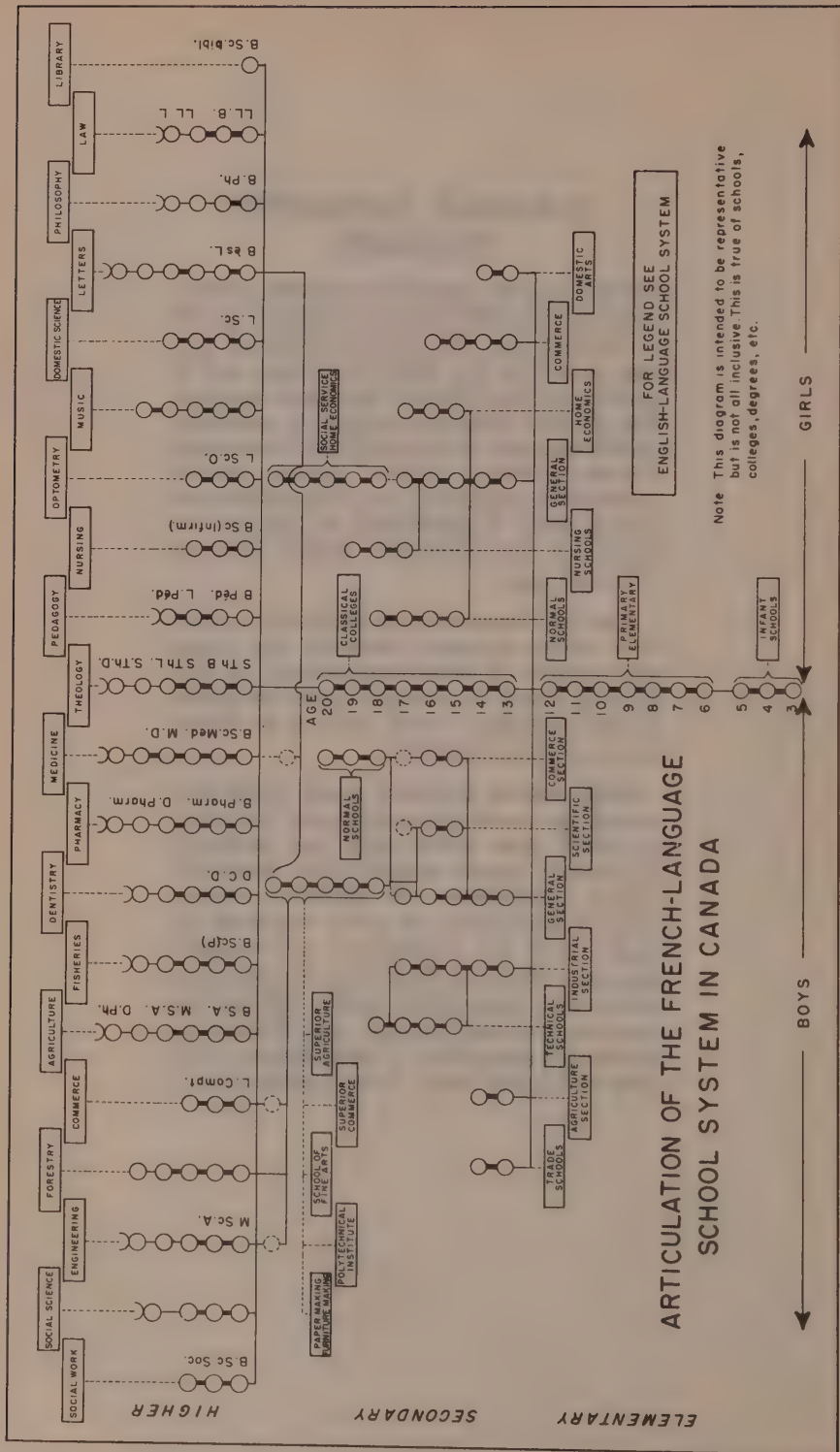
For the education of Eskimos, day schools are operated by the Northern Administration and Lands Branch of the Department of Resources and Development at Aklavik, Tuktoyaktuk, Coppermine, Chesterfield Inlet, Cape Dorset and Coral Harbour, N.W.T., and at Fort Chimo and Port Harrison in the Province of Quebec.

Mission residential schools are operated by the Roman Catholic Church at Aklavik, Fort Providence and Fort Resolution, and Mission day schools at Fort Simpson and Fort Smith; the Church of England operates a residential school at Aklavik. These churches and other mission organizations also conduct schools for Eskimos at a number of points in the Eastern Arctic and northern Quebec. Eldorado Mining and Refining (1944) Limited at Port Radium and the Discovery Yellowknife Mines of the Mackenzie District also operate day schools.

The only organized school districts are the Yellowknife Public School District No. 1 and the Yellowknife Roman Catholic Separate School District No. 2. The Public School District, established in 1939, operates a modern eleven-classroom elementary and high school which was opened in 1947. The Separate School District was established in 1951 and has under consideration the erection of a four-classroom school. Meanwhile provision has been made for the attendance of the pupils of this District at the public school.

ELEMENTARY SECONDARY





Territorial, Federal and Indian day schools are maintained by the authorities concerned and residential, mission, mine, public and separate schools receive aid in the form of grants or supplies from the government authorities concerned. A Superintendent of Education, with headquarters at Fort Smith, periodically inspects the schools of the Mackenzie District. These schools follow the program of studies for elementary and secondary schools authorized by the Alberta Department of Education. In remote areas, elementary and high-school students have access to correspondence-course studies issued by the educational authorities of Alberta and the cost is borne by the territorial administration.

A modified elementary-school curriculum is followed by some of the Federal schools for Eskimos by way of meeting the unique needs in the Arctic regions and a suitable curriculum for teaching Eskimo children in Mission schools is being considered. Because of their nomadic way of life Eskimos seldom remain long at the settlements and the periods available to the Missions for teaching the children are comparatively short. The Eskimos of the Eastern Arctic have long had a system of syllabic writing (expressed as geometric phonetic characters) which most of them can now read and write proficiently. Syllabic writing has been used successfully to provide educational material in the Eskimo language on health matters, hygiene, and native economics for the benefit of both children and adults. It is hoped that the establishment of schools in Eskimo territory will be influential in teaching the Eskimos to understand, speak and read simple English.

A program designed to improve education and welfare facilities generally has been initiated in the Northwest Territories. The program includes regular distribution of educational films, special radio broadcasts to classrooms, the provision of additional equipment and supplies, and increased attention to methods of instruction. Schools are usually staffed by a particular classification of welfare teachers, who carry on welfare work in the communities in addition to regular teaching duties.

Yukon Territory.—Public schools in Yukon are operated by the Territorial Government at Dawson, Mayo, Whitehorse, Carcross, Teslin, Watson Lake, Haines Junction, Kluane Lake, Brook's Brook, Destruction Bay and Swift River. The Roman Catholic Church operates a day school at Dawson and a residential school at Whitehorse.

The education of native children is carried on in day schools operated by the Indian Affairs Branch of the Department of Citizenship and Immigration and in residential schools operated by religious denominations. Full-time day schools are maintained at Whitehorse, Carmacks, Mayo, Moosehide and Old Crow, and seasonal schools at Burwash Landing, Ross River and at other points as required. A residential school is conducted under the auspices of the Church of England at Carcross. Close to the southern boundary of Yukon Territory at Lower Post in British Columbia, an Indian residential school is conducted under the auspices of the Roman Catholic Church. Residential schools in Yukon receive a per capita grant for Indian children registered therein.

The schools in the Territory follow the program of studies of the British Columbia Department of Education. The public schools at Dawson and Whitehorse have high-school departments providing education leading to university entrance. University entrance (junior matriculation) examinations are held in June at Dawson and Whitehorse by authority of the British Columbia Department of Education. The examination papers are forwarded from Victoria and are returned there for grading. In outlying districts correspondence courses are provided at a nominal fee by the British Columbia Department of Education.

Educational matters in Yukon are in charge of a Superintendent of Schools, resident at Dawson, who is responsible to the Commissioner. Annual inspections of all schools are made by the Superintendent.

Section 3.—Statistics of Schools, Universities and Colleges

This Section summarizes the statistics of all educational institutions in Canada classified into four types: provincially controlled schools, privately controlled schools, universities and colleges and federal Indian schools.

1.—Enrolment in Educational Institutions, classified by Types of School and by Provinces, School Year 1949-50

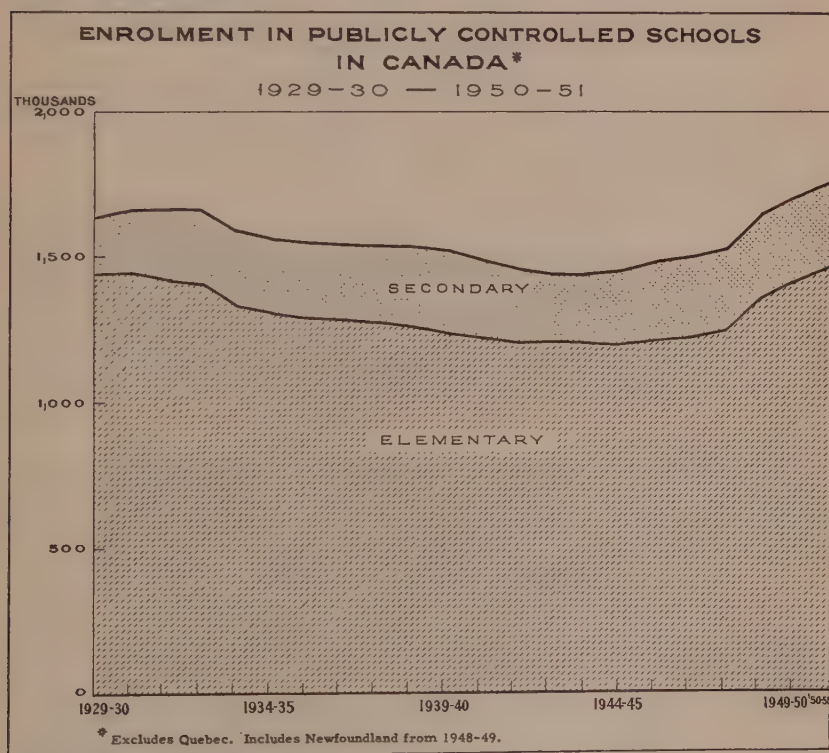
Type of School	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	No.	No.	No.	No.	No.	No.
Provincially Controlled Schools—						
Ordinary and technical day schools...	78,271	18,863	130,398	104,071	617,489	745,169
Evening schools...	162	—	4,868	1,401	18,000 ¹	67,000 ¹
Correspondence schools...	12	105	1,240	335	1,000 ¹	1,567
Special schools ² ...	—	—	337	—	769	531
Normal Schools—						
Full time ³ ...	143	76	343	170	5,785	1,481
Accelerated courses...	359	—	85	—	—	591
Privately Controlled Schools—						
Ordinary day schools...	—	971	4,217	2,306	63,600 ¹	18,823
Business Training Schools—						
Day classes...	—	107	744	606	6,300 ¹	6,242
Evening classes...	—	78	309	493	2,800 ¹	5,757
Universities and Colleges—						
Preparatory courses...	—	527	368	642	18,114	3,256
Courses of university standard...	914	303	4,632	2,687	27,717	35,212
Other courses at university...	—	76	284	452	13,579	9,647
Indian schools and schools in the Territories...	—	46	592	397	1,957	5,398
Totals	79,861	21,152	148,417	113,560	777,110	900,674
Population (June 1, 1950 estimate).....	351,000	96,000	638,000	512,000	3,969,000	4,471,000
	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.	Totals
	No.	No.	No.	No.	No.	No.
Provincially Controlled Schools—						
Ordinary and technical day schools...	126,477	166,747	167,790	164,212	—	2,319,487
Evening schools...	3,903	2,588	704	15,937	—	114,563
Correspondence schools...	996	3,057	10,337	5,233	—	23,882
Special schools ² ...	17	173	—	134	—	1,961
Normal Schools—						
Full time ³ ...	360	582	457	553	—	9,950
Accelerated courses...	507	—	—	—	—	1,542
Privately Controlled Schools—						
Ordinary day schools...	5,271	2,630	3,539	6,256	—	107,613
Business Training Schools—						
Day classes...	1,723	907	1,408	1,845	—	19,882
Evening classes...	1,925	755	1,292	2,511	—	15,920
Universities and Colleges—						
Preparatory courses...	665	844	727	—	—	25,143
Courses of university standard...	5,833	6,283	5,612	9,814	—	99,007
Other courses at university...	4,447	989	1,568	440	—	31,482
Indian schools and schools in the Territories...	3,208	3,229	2,775	4,886	2,654	25,142
Totals	155,332	188,784	196,209	211,821	2,654	2,795,574
Population (June 1, 1950 estimate).....	768,000	833,000	913,000	1,137,000	24,000	13,712,000

¹ Estimated.

² Schools for the blind and deaf; these are boarding schools and many of the pupils are from provinces other than the one in which the school is situated.

³ Courses for elementary teachers only; those for secondary teachers are included in university enrolment.

The provincially controlled schools are the most important group and account for about 90 p.c. of the total enrolment shown in Table 1. These systems of public elementary and secondary education are financed mainly by local school authorities, assisted by provincial grants. There are private schools in all provinces (i.e., schools that are not conducted by publicly elected or publicly appointed boards and are not financed out of public money) but their enrolment is not large in comparison with that of the public schools. At the level of higher education, there is a provincial university in each of six provinces and one or more colleges supported out of provincial funds in the other provinces. In addition, there are 16 private universities most of which receive provincial aid and 163 colleges giving degree credit courses. For information on the inauguration of a system of federal grants to universities and colleges, see p. 337. Agricultural schools and colleges are listed in the 1943-44 Year Book, pp. 203-213.



Subsection 1.—Provincially Controlled Elementary and Secondary Schools*

Enrolment and Attendance.—At the elementary-school level, enrolments have been increasing since the school year 1944-45, except in Saskatchewan. Birth registrations of the past few years indicate that by 1953-54 the enrolment in Grades I to VIII will have increased from 1,712,662 to over 2,307,000, a total of 595,000, and there is every indication that the increase may amount to 800,000 by 1960. A decline may set in shortly after that. An increase of 800,000 is equal to over 45 p.c.

* Day and technical schools only.

of the 1944-45 enrolment in the elementary schools of Canada. Grades above Grade VIII will begin to feel the effects between 1953 and 1955 and by 1965 secondary school enrolment may be close to double the present total.

Other factors operating to increase enrolment include: the introduction of family allowances in 1945 which, while showing its effects on schools most clearly in improved attendance, is also keeping in school to the legal age limit many pupils who might otherwise leave from a few months to two years before they are lawfully entitled to leave; increased emphasis on the holding power of schools; increased transportation facilities at public expense; the building of dormitories in some provinces; the larger unit of administration; the establishment of junior high schools and composite schools; and the wave of post-war immigration. Enrolment in provincially controlled schools is given for the latest school year available in Table 1 and average daily attendance is shown in Table 2. The average daily attendance figures are more comparable, as between provinces, and for most purposes probably more significant than those of enrolment.

2.—Average Daily Attendance in Provincially Controlled Schools, by Provinces, School Years Ended 1941-50

NOTE.—Comparable figures for earlier years will be found in previous editions of the Year Book, beginning with the 1932 edition.

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1941...	...	12,855	89,379	69,321	542,938	582,466	110,826	155,937	135,386	103,192	1,802,300
1942...	...	12,975	89,915	72,119	532,759	576,711	106,631	152,354	139,886	102,085	1,785,435
1943...	...	12,759	86,630	69,814	515,140	553,954	100,169	138,019	127,214	93,473	1,697,172
1944...	...	12,621	89,490	69,523	518,896	559,796	99,471	136,752	128,051	102,999	1,717,599
1945...	...	12,984	93,831	70,746	523,741	571,625	100,971	135,336	130,095	107,599	1,746,928
1946...	...	14,321	99,367	74,529	529,613	590,801	104,666	138,267	133,162	114,590	1,799,316
1947...	...	14,850	102,099	78,129	533,765	597,400	103,739	135,038	131,011	121,334	1,817,365
1948...	...	14,774	103,858	81,057	544,000 ¹	613,627	103,744	135,927	133,410	129,559	1,860,256 ¹
1949...	59,520	14,727	107,914	82,168	560,000 ¹	638,733	105,240	135,872	136,690	138,941	1,979,805 ¹
1950...	66,727	15,043	111,813	87,158	585,000 ¹	668,000 ¹	106,008	136,991	146,388	147,584 ¹	2,079,712 ¹

¹ Estimated.

Grade Distribution.—A record of the grade distribution of pupils in the provincially controlled schools of all provinces is presented in Table 3. The grades of boys and girls cannot be shown separately.

3.—Grade Distribution of Pupils Enrolled in Provincially Controlled Schools, by Provinces, School Year 1949-50

Grade	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Kindergarten....	—	—	—	—	3,957	38,089	2,555	496	—	1,433
Grade I.....	18,422	2,743	24,938	14,937	99,598	92,449	18,313	21,997	22,253	20,640
“ II.....	10,151	1,990	14,868	13,018	91,687	81,764	15,080	18,506	18,546	18,904
“ III.....	8,923	2,106	14,414	12,344	88,636	72,790	14,124	18,197	17,867	17,833
“ IV.....	8,375	1,921	13,718	11,818	84,162	69,066	13,296	17,561	16,961	16,331
“ V.....	7,663	2,134	13,428	10,967	74,187	68,340	12,375	16,912	16,170	15,042
“ VI.....	6,838	1,884	12,015	9,671	65,090	64,835	11,491	15,717	15,477	14,425
“ VII.....	5,408	1,609	10,959	8,461	49,577	58,873	10,518	14,311	14,854	13,891
“ VIII.....	4,028	1,588	8,723	7,215	25,931	57,268	8,815	13,317	12,884	12,420
“ IX.....	3,631	1,162	7,069	4,793	18,029	48,616	8,078	10,712	11,653	11,050
“ X.....	2,550	1,023	5,267	4,088	8,814	35,950	6,723	7,875	8,383	9,083
“ XI.....	1,809	558 ¹	3,652	2,633	5,594	22,544	4,521	5,809	6,484	6,752
“ XII.....	47	89 ¹	1,347	187	1,864	17,637	1,558	4,447	6,258	5,398
“ XIII.....	—	—	—	—	—	10,542	—	—	—	1,010
Special.....	426	—	—	—	895	6,406	—	—	—	—
Unclassified.....	—	56	—	—	3,074	—	—	330	—	—
Totals.....	78,271	18,863	130,398	104,071	617,489	745,169	126,477	166,747	167,790	164,212

¹ Including 407 Grade XI students and 72 Grade XII students enrolled in Prince of Wales College.

Teaching Staffs.—In 1950 the teaching staffs of the publicly controlled elementary and secondary schools comprised 22,761 men and 62,531 women, a total of 85,292. Omitting Quebec for which comparable data are not available, 35 p.c. of the teachers were in cities, 27 p.c. were in towns and villages, 25 p.c. were in one-room rural schools, and the remaining 13 p.c. in schools of two or more rooms outside of urban centres. The proportion of men teachers is increasing and in 1950 reached 29 p.c., a little short of the pre-war level of 30 p.c. Again omitting Quebec where 36 p.c. of the teachers are members of religious orders, approximately 25 p.c. of the women teachers are married. Of the total number of teachers in the nine provinces, at least 10 p.c. are only partially trained or are untrained; also about 10 p.c. of the total staff leave the profession each year. During the 1949-50 school year there was an increase of \$110 in the median salary (see Table 4) for teachers in the nine provinces (Quebec excluded).*

4.—Teachers in Provincially Controlled Schools classified according to Salary, by Provinces, School Year 1949-50

NOTE.—Comparable figures for Quebec are not available.

Salary	N'tld.	P.E.I.	N.S.	N.B.	Ont.	Man.	Sask.	Alta.	B.C.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
\$ 525 - \$1,024.....	1,266	253	600	736	1,255	281	82	39	—
\$1,025 - 1,524.....	517	366	1,423	1,559	1,556	1,103	2,733	518	1,103
\$1,525 - 2,024.....	324	66	1,155	571	8,827	1,651	2,778	1,461	1,182
\$2,025 - 2,524.....	148	19	563	337	4,851	651	881	2,080	1,303
\$2,525 - 3,024.....	79	3	290	127	3,294	384	367	945	1,376
\$3,025 - 3,524.....	22	4	165	99	2,688	233	220	537	730
\$3,525 - 4,024.....	5	—	62	32	1,308	115	110	288	579
\$4,025 or over.....	—	—	21	5	1,339	107	36	175	478
Unspecified.....	14	—	—	11	10	304	3	28	11
Totals.....	2,375	711	4,279	3,477	25,128	4,829	7,210	6,071	5,762
Median salaries..... \$	966	1,083	1,569	1,341	2,109	1,689	1,580	2,279	2,668

Financial Support.—The income required to support the public elementary and secondary schools is derived almost wholly from local taxation and provincial grants. Fees for elementary schooling may be charged in Quebec. In some of the other provinces fees are charged for secondary grades but, except where in lieu of taxation, they are quite nominal.

In general, school boards submit their budgets to the local municipal councils which levy for and collect the required amounts. School boards in Quebec and some boards in other provinces have the power to levy and collect taxes for school purposes. Assessment on which taxes for school purposes are levied is the valuation of land and buildings (or improvements in some cases) and usually some other factor such as personal property or business income.

Each province has its own method of apportioning grants to local school boards. These grants are of two types. (1) The basic grant may be calculated on a basic minimum cost, an amount per classroom, salary and qualifications of teacher, average attendance, etc. All provinces adopt some means of increasing equality of opportunity by favouring poorer areas over richer ones. (2) Special grants are paid for such features as transportation, music, arts and crafts, special classes, equipment, building costs, night classes, etc. Special grants loom largest in Quebec where there is marked emphasis on training for home industries, arts and crafts.

* More detail is given in D.B.S. report *Teachers' Salaries and Qualifications in Nine Provinces, 1950*.

Newfoundland schools are financed largely from provincial funds. Tuition fees may be charged for Grades I to VIII only, except in the 'colleges' (St. John's) where fees may be charged for Grades I to XI. Fees may be charged also to provide for fuel and cleaning or these may be provided in kind. There is no local taxation for school purposes. Provincial grants are mainly for teachers' salaries, school plant maintenance and repairs, and the erection of buildings.

Table 5 presents a comparable statement of the finances of school boards operating publicly controlled schools so far as this can be done with existing records.

5.—Financial Support of Provincially Controlled Schools, by Provinces, for Provincial Fiscal Years Ended 1939, 1948 and 1949

NOTE.—The receipts shown in this table do not include any amounts raised by loans or the sale of bonds or debentures, as all revenue of this nature must be repaid ultimately with money raised by local taxation. Figures from 1914 are given in the corresponding tables of previous Year Books beginning with the 1936 edition. The fiscal years of all provinces end Mar. 31, except Nova Scotia (Nov. 30) and New Brunswick (Oct. 31).

Province and Year	Provincial Government Grants	Local Taxation	Other Sources	Total Current Revenue Recorded	Debenture Indebtedness ¹	Administrative Units Operating Schools
	\$	\$	\$	\$	\$	No.
Newfoundland—						
1949.....	3,200,302	—	660,000 ²	3,860,302 ²	..	274
Prince Edward Island—						
1939.....	274,323 ³	175,244	..	449,567	..	474
1948.....	514,287 ³	401,381	..	915,668	..	479
1949.....	524,783 ³	438,164	32,374	995,321	..	457
Nova Scotia—						
1939.....	718,546 ³	3,341,689 ³	..	4,060,235	..	1,775
1948.....	5,202,003 ³	4,951,410 ³	..	10,153,413	..	1,784
1949.....	5,291,871 ³	5,401,966 ³	..	10,693,837	..	1,762
New Brunswick—						
1939.....	534,315 ³	2,637,820 ³	..	3,172,135	4,659,650	1,553
1948.....	2,599,653 ³	4,963,195 ³	..	7,562,848	..	1,784
1949.....	4,454,345 ³	5,918,000 ³	310,000	10,682,345	..	1,323
Quebec—						
1939.....	2,386,965	19,716,324	1,572,832	23,676,121	68,043,977	1,905
1944.....	6,768,395	23,554,568	2,015,294	32,338,257	72,618,071	1,966
Ontario—						
1939.....	7,015,225	41,638,332 ⁵	..	48,653,557	59,499,543	6,600
1948.....	32,689,209	54,898,508 ⁵	2,938,683	90,526,400	68,407,290	4,301
1949.....	37,558,062	61,646,259 ⁵	3,516,346	102,720,667	83,877,272	4,315
Manitoba—						
1939.....	1,172,783	6,850,783	139,756	8,163,322	8,045,764	1,889
1948.....	3,623,554	9,657,680	1,122,855	14,404,089	4,018,271	1,732
1949.....	4,206,665	11,442,422	588,611	16,237,698	6,440,174	1,729
Saskatchewan—						
1939.....	2,305,375	7,254,500	451,143	10,011,018	12,936,569	4,933
1948.....	6,052,524	14,556,217	310,644	20,919,385	4,202,678	1,459 ⁶
1949.....	5,825,433	15,751,617	340,594	21,917,644	4,382,943	1,164 ⁶
Alberta—						
1939.....	1,809,392	8,387,514	253,252	10,450,158	7,653,468	3,592
1948.....	6,480,440	15,548,427	352,963	22,381,830	10,504,362	206 ⁶
1949.....	6,445,559	17,781,887	421,073	24,648,519	15,804,214	246 ⁶
British Columbia—						
1939.....	2,722,702	7,009,070	..	9,731,772	14,379,553	721
1948.....	8,677,336	11,706,305	367,335	20,750,976	18,024,136	93 ⁷
1949.....	13,450,668	14,451,889	1,631,715	29,534,272	..	97

¹ Net figures, after deduction of sinking funds, except for British Columbia 1939, for which the gross figure is given. ² Estimated. ³ Includes contributions to teachers' salaries and, in New Brunswick, grants made to schools by the Vocational Education Board. ⁴ Latest available figures. ⁵ Includes amounts raised by counties and the township grants on salaries of rural public school teachers. ⁶ In addition, there are local boards within larger units. ⁷ In 1946 the local school districts were amalgamated into larger administrative units.

Subsection 2.—Private Elementary and Secondary Schools

Private schools include all those not operated by publicly elected or appointed boards. Except in Quebec, they receive no support from public funds. Instruction is similar to that given in public schools except that more opportunities may be given for music, art, etc., and in schools under religious control there is greater emphasis on religious instruction. In most provinces there is some form of inspection or regulation by the provincial department of education.

Of the 828 private schools reported in 1950, 505 were in Quebec, 122 in Ontario, 120 in the Prairie Provinces, 43 in British Columbia and 38 in the Maritimes. There were 6,455 full-time teachers of whom 1,334 were men. Outside of Quebec, the salaries for lay teachers ranged from \$600 to \$4,800 with a median of \$1,325 for women, and from \$800 to \$8,000 with a median of \$2,037 for men.

In these schools, 63 p.c. of the pupils, including 41,000 girls and 24,000 boys, were in the elementary grades. At the secondary level there were 22,000 girls and 11,000 boys.

The private schools are financed largely from fees, legacies, gifts, or by religious orders. The fees range from very little to upwards of \$1,000 per year. In 1948 they averaged \$100 for day students and \$500 for boarders. Excluding Quebec, the expenditures of the private schools in 1949 amounted to over \$7,850,000. Of this amount \$2,303,000 was paid out in teachers' salaries.

6.—Enrolment in Private Elementary and Secondary Schools, by Provinces, Specified School Years Ended 1921-50

NOTE.—Figures for intervening years will be found in the corresponding tables of the 1937, 1942 and 1946 Year Books.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1921.....	692	3,047	2,607	54,671	9,961	3,149	1,608	2,274	3,159	81,158
1926.....	580	2,956	3,528	54,767	10,126	4,534	2,358	2,281	4,624	85,754
1931.....	570	2,746	3,625	57,320	12,214	5,864	2,853	2,944	5,276	93,412
1941.....	638	2,986	2,935	55,847	13,458	4,509	1,985	3,813	5,003	91,174
1945.....	754	3,913	2,843	..	15,911	4,593	3,544	2,032	5,704	39,294 ¹
1946.....	804	3,362	2,903	..	16,336	4,643	3,682	2,852	5,576	40,158 ¹
1947.....	803	3,109	2,841	..	15,694	4,125	3,721	2,507	5,195	37,995 ¹
1948.....	877	3,414	2,341	59,020	16,586	4,653	2,710	2,519	5,983	98,103
1949.....	951	3,894	2,504	61,200	18,251	5,348	2,625	3,630	6,334	104,737 ²
1950.....	971	4,217	2,306	63,600	18,823	5,271	2,630	3,539	6,256	107,613 ²

¹ Exclusive of Quebec.

² Exclusive of Newfoundland.

Business Colleges.—Of the 152 business schools reported in 1950 in eight provinces (exclusive of Quebec and Newfoundland) 18 were in the Maritimes, 85 in Ontario, 27 in the Prairie Provinces and 22 in British Columbia. There were 221 men and 459 women employed as full-time teachers and 72 men and 159 women as part-time teachers.

Girls predominate in the student body and the enrolment in evening classes is almost equal to the full-time day enrolment. The 1950 enrolment was: full-time day classes, 4,424 boys and 12,894 girls; part-time classes, 521 boys and 2,043 girls; evening classes, 4,156 boys and 11,764 girls. The total for the year was about 2,000 less than in 1946 and 1947. About 55 p.c. of the students were 17 to 19 years of age.

Monthly fees ranged from \$5 to \$25 for day classes and from \$3 to \$15 for evening classes. Total operating expenditures for these schools amounted to over \$1,500,000 in 1949 of which \$830,000 was for teachers' salaries.

7.—Enrolment in Private Business and Commercial Schools (Business Colleges), by Provinces, Specified School Years Ended 1921-50

NOTE.—Figures include day and evening classes. Those for intervening years will be found in the corresponding tables of the 1937, 1942 and 1946 Year Books.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1921.....	85	1,280	740	4,319	14,537	3,538	1,333	2,216	1,986	30,034
1926.....	114	766	722	2,743	10,314	3,502	1,436	2,739	2,230	24,566
1931.....	140	775	671	2,807	9,732	3,087	1,400	1,629	2,180	22,421
1941.....	168	1,019	329	3,707	9,119	1,782	1,431	2,145	2,010	21,710
1945.....	104	684	816	..	11,141	3,532	1,200	2,726	2,906	23,109 ¹
1946.....	181	1,080	805	..	14,901	4,099	1,568	3,482	4,021	30,137 ¹
1947.....	212	1,106	1,119	..	15,024	3,721	1,904	3,855	4,009	30,950 ¹
1948.....	227	1,011	958	..	13,917	3,493	1,533	3,731	3,674	28,544 ¹
1949.....	214	1,070	916	9,000 ¹	12,938	3,449	1,554	2,969	3,932	36,042 ^{1,2}
1950.....	185	1,053	1,099	9,100 ¹	11,999	3,648	1,662	2,700	4,356	35,802 ^{1,2}

¹ Estimated.

² There are no schools of this type in Newfoundland.

Subsection 3.—Indian Schools*

A great expansion has taken place in the educational work being carried on by the Federal Government for the benefit of Indian children and adults. In the year ended Mar. 31, 1951, 435 Indian schools were in operation, including 67 residential, 3 combined and 365 day schools. The enrolment in residential schools was 9,357 and in the day schools 15,514, the latter showing an increase of 5,196 pupils since 1947.

Enrolment in Indian schools, by provinces, for the year 1950-51 was as follows: Prince Edward Island, 51; Nova Scotia, 591; New Brunswick, 416; Quebec, 2,208; Ontario, 5,736; Manitoba, 3,205; Saskatchewan, 3,423; Alberta, 3,141; British Columbia, 5,094; Yukon Territory, 317; and the Northwest Territories, 689.

* Prepared in the Indian Affairs Branch, Department of Citizenship and Immigration, Ottawa.

8.—Enrolment and Average Attendance at Indian Schools, Years Ended Mar. 31, 1942-51

Year	Residential Schools		Day Schools		All Schools		
	Enrolment	Average Attendance	Enrolment	Average Attendance	Enrolment	Attendance	
						No.	P.C. of Enrolment
1942.....	8,840	8,283	8,441	5,837	17,281	14,120	81.7
1943.....	8,830	8,046	8,046	5,395	16,876	13,441	79.6
1944.....	8,729	7,902	7,858	5,355	16,587	13,257	79.9
1945.....	8,865	8,006	7,573	5,159	16,438	13,165	80.1
1946.....	9,149	8,264	9,656	6,779	18,805	15,043	80.0
1947.....	9,304	8,192	10,318	7,449	19,622	15,641	79.7
1948.....	8,986	7,863	11,115	8,296	20,101	16,159	80.3
1949.....	9,368	8,345	12,615	10,414	21,983	18,759	85.3
1950.....	9,316	8,593	14,093	12,060	23,409	20,653	88.2
1951.....	9,357	8,779	15,514	13,526	24,871	22,305	89.7

In addition to pupils in Indian schools, there were 1,468 Indian children enrolled in elementary grades in provincial schools and 564 in secondary provincial schools. Thus the total enrolment of Indians in educational classes numbered 26,903 in 1950-51.

An active building program has been conducted in recent years and many new day schools have been erected. Assistance is given to pupils attending high schools, technical schools and universities through the payment of individual tuition grants. In 1950-51 there were 1,051 Indians receiving secondary education.

The administration of Indian affairs generally by the Indian Affairs Branch of the Department of Citizenship and Immigration is dealt with in Chapter III, pp. 156-160.

Subsection 4.—Universities and Colleges

The most significant event in the development of higher education in Canada during the academic year 1951-52 was the inauguration of a system of federal grants to be paid directly to the universities and colleges to help sustain their essential functions and to assist in their further development. Prior to 1951-52, federal assistance to the universities was restricted to fields of study and research considered as national in scope. This assistance usually took the form of national scholarships to students or subsidies to universities for research projects related to the promotion and utilization of national resources, related to national defence, or to national health and welfare.

The change in federal policy was the result of the inquiry of the Royal Commission on National Development in the Arts, Letters and Sciences in Canada. The Commission reported that the universities, although provincial institutions, make great and indispensable contributions to the development of the arts, humanities and sciences, and to scholarship and research throughout the country, but that the financial position of most of the universities was such that they were unable further to develop their functions and were in danger of being forced to curtail and restrict their progress. The Royal Commission, therefore, recommended that federal grants be made to support the work of universities with full cognizance that such grants would not trespass on or limit provincial responsibilities in matters of education.

For the academic year 1951-52, the project was in a preliminary or experimental stage. The prescriptions and regulations governing the university grants for the initial year were authorized by Order in Council (P.C.123, Jan. 9, 1952). The amount, \$7,100,000, voted for this purpose under the present proposal was allocated on a population basis at a rate not exceeding 50 cents per capita for each province. The population figures used were those of June 1, 1951, estimated in August 1951 by the Dominion Bureau of Statistics, and the proportion of the grant for each university and college within a province must not exceed that which the university-grade enrolment of the individual institution bears to the total provincial university-grade enrolment.

To overcome anomalies in the level of education considered as of university grade, the enrolment has been restricted to students in full-time attendance at a university or college registered in a program of studies leading to a recognized university degree, or to a diploma for which a university degree is prerequisite.

Institutions considered eligible for the federal grants are those that have attained membership within the National Conference of Canadian Universities and the affiliated colleges of those universities. The college must provide at least two years of instruction, each year of which gives full credit towards a university degree.

The new grants are timely in that they are initiated in the year which will see the expiration of federal allowances to universities for the education of war veterans, and an expected drop in enrolment from that of recent years.

Graduate Schools.—Prior to 1940, five of the English language universities—Toronto, McGill, Queen's, Manitoba and Alberta—carried graduate work to the doctorate level in certain fields of study. The University of Montreal and Laval University in the French tradition had a wider variety of 'doctorats' in the graduate faculties and professional schools that comprised the university organization. All the major universities provided courses of study to the mastership level, but in all cases the fields of graduate study were restricted.

In 1940 Laval University organized a school of graduate studies in which the direction of all graduate work was centralized.

During the past five years Dalhousie University, the University of New Brunswick, the University of Ottawa, the University of Western Ontario and the four western provincial universities have established schools, or separate faculties, of graduate studies and research. McGill University has increased its roster of doctoral degrees and the University of Toronto has assumed the status of a fully rounded school of graduate studies with degrees to the doctorate level in all disciplines.

Enrolment.—Undergraduate students registered in the full-time session for 1949-50 numbered 69,011, a drop of 9 p.c. from 75,807 undergraduates of the preceding year and 13 p.c. lower than the peak year 1947-48 registration of 79,225 undergraduate students. The Department of Veterans Affairs records show that student veterans in 1949-50 represented 18.9 p.c. of the total undergraduate student body; in 1948-49 the proportion was 28.8 p.c. and in 1947-48 it was 37.3 p.c. The Department estimates that less than 2,000 veteran students will be included in the 1951-52 enrolment.

In graduate schools and courses enrolment has increased. The universities reported 5,122 post-graduate students in the full-time session for 1949-50 as compared with 4,857 in 1948-49 and 4,139 in 1947-48. War-veteran students represented 20.7 p.c. of the 1949-50 post-graduate students, 26.8 p.c. of the 1948-49 registration and 21.7 p.c. in 1947-48.

The total full-time enrolment of university-grade students includes some who entered university under the Department of Veterans Affairs training scheme but whose war-service benefits have expired. These students account for a certain degree of inflation in the enrolment. However, after allowance is made for them and for civilian students whose entrance to university was delayed by lack of accommodation during the period of inflated enrolment, enrolment for 1951-52 should be higher than that of the pre-war years.

Interprovincial Student Migration.—The student body of Canadian universities, recorded by province, includes students from foreign countries and students whose place of residence in Canada is outside the province in which they are attending university. There is considerable variation in the proportions of students who attend university in their home province. Several factors promote the interprovincial migration of students.

The Provinces of Nova Scotia and New Brunswick record 32 p.c. and 30 p.c., respectively, of their students from other provinces of Canada, mainly from sister Maritime Provinces. For the sake of economy, there is considerable centralization of professional training at Halifax for students of the Maritimes. The University of New Brunswick conducts the only English-language School of Forestry east of Toronto, Ont. Further, there is the factor of denominational church-controlled universities in the region, the largest Baptist and United Church universities east of Toronto are located in New Brunswick, while the largest Anglican university east of Toronto is in Nova Scotia.

Quebec and Ontario have the largest graduate schools in Canada and the largest French-language universities. These factors have a bearing on their student enrolment from other provinces.

The total enrolment of university-grade students for 1949-50 may be expressed in the following proportions:

Province	Full-time Enrolment (Undergraduate and Post-Graduate)	Percentages from—		
		Home Province	Other Provinces of Canada	Foreign Countries
	No.			
Newfoundland.....	324	100	—	—
Prince Edward Island.....	298	88	11	1
Nova Scotia.....	4,126	62	32	6
New Brunswick.....	2,233	67	30	3
Quebec.....	21,366	83	10	7
Ontario.....	26,005	86	9	5
Manitoba.....	4,543	86	12	2
Saskatchewan.....	3,360	91	7	2
Alberta.....	3,921	92	7	1
British Columbia.....	7,957	89	9	2
ALL PROVINCES.....	74,133	84	11	5

University Graduates.—In 1949-50 there were 17,681 bachelor and first professional degrees awarded, about 18 p.c. going to women. Awards in the arts and sciences, including commerce, represented approximately one-half of the total basic degrees conferred. Graduates in applied science, engineering and architecture represented 11 p.c. of the total and the medical sciences, including dentistry, pharmacy and nursing degrees, made up about 10 p.c.

At post-graduate level there were 1,186 master's degrees, 513 licentiates and 226 doctorates in course. About 23 p.c. of all those receiving post-graduate degrees were women.

9.—Graduates from Universities and Colleges, School Years Ended 1939 and 1948-50

NOTE.—Figures for 1920-36 are given at pp. 993-997 of the 1938 Year Book and for 1937-47 in the corresponding tables of subsequent editions.

Course	1939		1948		1949		1950	
	Total	Female	Total	Female	Total	Female	Total	Female
	No.	No.	No.	No.	No.	No.	No.	No.
Graduates in Arts, Pure Science and Commerce—								
Bachelors of Arts ¹	3,354	1,119	6,293	2,003	7,043	2,078	6,791	1,987
Bachelors of Science (in Arts).....	356	55	1,003	173	1,324	175	1,242	129
Bachelors of Commerce ²	242	29	1,127	56	1,362	71	950	42
Totals.....	3,952	1,203	8,423	2,232	9,729	2,324	8,983	2,158
Graduates in Applied Science—								
Bachelors of Applied Science Engineering.....	629	—	1,690	8	2,999	6	3,598	2
Bachelors of Architecture ³	30	3	55	7	84	4	165	6
Bachelors of Forestry.....	21	—	104	1	271	—	319	—
Totals.....	680	3	1,849	16	3,354	10	4,082	8
Graduates in Agriculture, Veterinary Science and Household Science—								
Bachelors of Agricultural Science.....	258	3	384	24	893	30	804	23
Graduates in Veterinary Science.....	77	1	84	2	139	2	150	3
Bachelors of Household Science.....	194	194	258	258	299	299	275	275
Totals.....	529	198	726	284	1,331	331	1,229	301
Teacher Diplomas and Graduates in Education and Social Service—								
Teacher diplomas.....	485	—	804	—	774	—	858	—
Degrees in education or pedagogy.....	100	25	481	103	632	152	531	138
Librarian degrees and diplomas.....	60	56	79	68	95	72	117	88
Physical training degrees and diplomas.....	39	38	146	62	170	63	151	61
Social service degrees and diplomas.....	62	58	241	160	268	174	268	162
Totals.....	746	177 ⁴	1,751	393 ⁴	1,939	461	1,925	449
Graduates in Medicine and Related Studies—								
Medical doctors.....	565	27	651	54	684	56	817	42
Dentists.....	111	2	177	15	178	2	329	4
Pharmacists.....	190	18	426	80	374	51	422	65
Degrees and diplomas in nursing.....	204	204	318	318	470	470	538	538
Physio-therapy and occupational therapy.....	34	34	47	47	154	154	73	73
Totals.....	1,104	285	1,619	514	1,860	733	2,179	722
Graduates in Law and Theology—								
Law schools.....	264	10	438	11	713	17	764	28
Roman Catholic theological colleges.....	348	—	357	—	335	—	326	—
Protestant theological colleges.....	154	19	135	24	155	27	181	6
Totals.....	766	29	930	35	1,203	44	1,271	34
Post-Graduate and Honorary Degrees—								
Honorary doctorates.....	102	9	173	11	227	8	198	8
Doctorates in courses.....	80	7	134	10	194	19	220	21
Masters of Arts ⁵	286	75	474	128	646	180	769	175
Masters of Science ⁶	120	2	279	20	324	23	417	33
Bachelors of Divinity.....	42	—	52	—	47	—	73	3
Licentiates (except in theology).....	133	10	336	23	417	29	362	34
Other post-graduate degrees and diplomas ⁷	85	7	611	121	469	155	583	198
Totals.....	848	110	2,059	313	2,824	414	2,622	472

¹ Includes Bachelors of Letters and of Social Science.² Includes Bachelors of Accountancy and³ Includes diplomas in Architecture from the Schools of Fine Arts of Montreal and Quebec.⁴ Excludes teacher diplomas.⁵ Includes M. Com. and M. Ed. or M. Paed.⁶ Includes M.A.Sc., M.S.A., M.Sc.F., M.Arch., M.V.Sc., M.Sc. Dent., M. Surgery (where conferred separately).⁷ Except diplomas for teachers and theologians.

Staffs.—On the basis of full-time university-grade enrolment in the regular session, there was one teacher for eight students in 1950, one for nine students in 1948 and 1949, and one for six students in 1941. This computation includes the part-time and full-time teaching staff recorded for each year. The ratio of full-time staff to full-time enrolment is almost double that of the above but this ratio excludes a large number of instructors in professional schools, such as medicine, where a considerable part of the teaching is done by part-time personnel.

The teaching complement for certain years since 1921 was as follows:—

School Year Ended—	Faculties of Arts and Science		Professional Schools		Totals (excluding duplicates)	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
1921.....	1,191	242	942	1,179	2,133	1,352
1931.....	1,776	519	1,127	1,705	2,903	2,077
1941.....	2,037	579	1,707	2,420	3,452	2,185
1946.....	2,466	1,010	2,645	2,440	4,937	2,797
1947.....	2,814	1,002	3,078	2,478	5,246	3,441
1948.....	3,042	1,119	3,257	2,667	5,447	3,591
1949.....	2,871	1,202	3,051	2,755	5,339	3,877
1950.....	2,890	1,153	3,078	3,036	5,246	4,127

Salaries paid to the full-time teaching staff are somewhat higher than in pre-war years. There is a considerable disparity between salaries paid to teachers in science, engineering and medicine and those paid to teachers in the humanities. The Report of the Royal Commission on National Development in the Arts, Letters and Sciences included the following data on annual salaries paid in three representative universities in 1949-50 to these two groups of teachers:—*

Classification	Humanities Division			Engineering, Science and Medicine		
	Professors			Professors		
	Full	Associate	Assistant	Full	Associate	Assistant
	\$	\$	\$	\$	\$	\$
High.....	6,500	5,500	3,750	Over 10,000	7,000	6,500
Upper quintile.....	5,750	4,250	3,500	6,500	4,500	3,500
Median.....	5,000	3,750	3,000	5,500	4,000	3,250
Mode.....	5,000	3,500	3,000	5,000	4,000	3,000
Low.....	3,750	3,000	2,500	4,000	3,250	2,250

Income and Expenditures.—A record of the sources of annual income for a representative group of universities and colleges is given in Table 10 for certain years from 1921 to 1950. For the academic year 1949-50, the institutions in the sample, representing about 85 p.c. of the total enrolment, reported an expenditure of \$651 per student. In Nova Scotia and New Brunswick the rate was \$488 per student; in Quebec \$794; in Ontario \$657; and in the western provinces it was \$589 per student. Student fees represented 38 p.c. of the total income reported and provincial grants constituted 36 p.c.; special allowances made to the universities by the Department of Veterans Affairs amounted to 6 p.c. of total income and that available for general purpose from endowments constituted an additional 7 p.c. The balance, about 13 p.c., was made up of gifts, small contributions from a few municipalities and all other sources of income including the grants from churches to some denominational institutions.

* Report of the Royal Commission on National Development in the Arts, Letters and Sciences in Canada, Ottawa, Queen's Printer, 1951, Tables I and II, pp. 139-140.

10.—Income and Capital Resources of Universities and Colleges, Specified School Years Ended 1921-50

NOTE.—The larger universities and many of the colleges in Canada are included and represent an enrolment of approximately 80 p.c. of the full-time students of university grade throughout the period. The institutions omitted are mainly those conducted by religious orders where teachers receive little or no salary and the financial returns are consequently not comparable.

School Year Ended—	Current Income					Deficit ²	Surplus ²	Capital Resources		
	From Endowment	Government Grants	Student Fees ¹	Miscellaneous	Total			Land, Buildings and Equipment	Endowment	Trust Funds
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
1921...	1,497	4,522	1,826	1,244	9,089	80	194	48,124	28,328	..
1926...	2,148	5,471	2,380	1,236	11,235	192	132	65,708	42,157	..
1931...	2,258	6,925	3,323	1,455	13,961	600	126	82,403	48,459	..
1941...	2,046	6,804	5,143	2,054	16,047	244	116	95,680	55,082	17,422
1945...	2,469	8,305	5,701	2,677	19,152	114	192	97,454	60,403	24,163
1946...	2,397	10,485	9,779	3,153	25,815	75	532	102,627	56,975	28,999
1947...	2,314	13,768	13,636	3,203	32,921	350	382	112,409	59,208	34,397
1948...	2,387	14,863	14,903	4,689	36,842	169	347	123,248	63,724	42,302
1949...	2,568	16,218	15,959	4,845	39,590	542	935	139,779	69,012	43,093
1950...	2,950	16,959	15,409	5,140	40,459	601	413	150,178	84,410	37,821

¹ Board and lodging not included.

² Combined deficits or surpluses of schools reporting.

University Training under the Veterans' Rehabilitation Act.*—Assistance to veterans in training is provided under the Veterans' Rehabilitation Act as outlined in the 1948-49 Year Book at pp. 321-322.

Since veterans were obliged to commence their university training within 15 months after discharge, the number entering training has dropped very sharply. In the academic year 1950-51, approximately 8,000 veterans in universities were receiving assistance through the Department of Veterans Affairs compared with about 15,000 in 1949-50 and 24,000 in 1948-49. Since the commencement of the training program 9,000 veterans have had insufficient qualifying service to carry them through to graduation but 6,068 of them qualified for continued assistance by securing scholarship standing in their universities. In 1949-50, 94 p.c. of the student veterans passed their examinations and won a high proportion of the available scholarships.

The distribution of the 8,000 veterans enrolled in 1950-51 by academic years, was: first year 255; second year 309; third year 1,140; fourth or subsequent year 4,605, and post-graduate 1,299. Since the inception of the rehabilitation program in 1941, 54,000 veterans have received university training.

PART II.—CULTURAL ACTIVITIES RELATED TO EDUCATION

REPORT OF THE ROYAL COMMISSION ON NATIONAL DEVELOPMENT IN THE ARTS, LETTERS AND SCIENCES†

The basis of the appointment of the Royal Commission on National Development in the Arts, Letters and Sciences in April 1949 and its objectives are presented in the Year Book 1951 at pp. 315-316. The Commission completed its work and tabled its Report in Parliament on June 1, 1951. The Report immediately aroused great interest in the press and with the public, and in the following months it was the subject of innumerable articles and commentaries.

* Prepared in the Department of Veterans Affairs, Ottawa.
† Ottawa, Queen's Printer, 1951.

As a preface to the Report the Commission quoted a passage from St. Augustine defining a nation: "A nation is an association of reasonable beings united in a peaceful sharing of the things they cherish; therefore, to determine the quality of a nation, you must consider what those things are". From this felicitous quotation and from evidence given in the Report it seems apparent that the Commissioners proceeded throughout their task on the assumption that in the arts and letters may be found a useful yardstick of a nation's culture and, further, that the arts and letters of any country can be important unifying factors. This theme occurs frequently throughout the Report; for example, in discussing the theatre and music in Canada their unifying influence on the country as a whole is emphasized. It seems evident, too, that in surveys of the various federal institutions and agencies which were reviewed particular attention was given to the manner in which these institutions might best serve the country as a whole.

Implicit throughout the Report seems to be the conviction that Canadian institutions which serve the national interests are logically entitled to some measure of support from the Federal Government. For example, recommendations were made concerning grants to Canadian universities and for the establishment of a council the principal duty of which would be to strengthen voluntary organizations concerned with matters reviewed by the Commission.

The Report of the Royal Commission is presented in two parts; the first consists of a survey of the many and varied subjects which the Commission was instructed to consider, and the second deals with the 146 recommendations presented under eight principal headings. It is proposed here to summarize the recommendations concerning national museums, federal libraries, public records and archives, historic sites and monuments, aid to universities, national scholarships and the establishment of a council for the arts, letters, humanities and social sciences. For accounts of the recommendations of the Royal Commission concerning the National Gallery, the National Film Board, and the Canadian Broadcasting Corporation, see pp. 347, 348 and 352, respectively.

The survey of the national and local museums found that Canadian museums lag far behind those of comparable countries. The Commission recommended that the present National Museum of Canada be given more space and more funds and that its principal exhibits be confined to Canada's geology, botany and zoology, and to the natural resources on which the primary industries of the country are founded. Further, the creation of a new Canadian Historical Museum was recommended for the exhibition of various historical collections now in the custody of the Public Archives, the Canadian War Museum and certain departments and agencies of the Federal Government. The Report also recommended the creation of a Canadian Museum of Science as well as national botanical and zoological gardens in appropriate regions of Canada.

The overcrowded condition of the Library of Parliament was examined and it was recommended that most of the collection be removed for safe-keeping, leaving space for adequate working library services and suitable stacks. The Commission further recommended the immediate establishment of a National Library.

Concern was shown regarding the extent to which the files of most government departments are congested with inactive or worthless documents and records and the Commission noted the very considerable storage spaces which the Department of Public Works must provide for great quantities of outdated records. The Commission therefore recommended that the responsibility of the existing Public Records

Committee be clearly defined and that a systematic and continuous transfer of inactive records from all departments and agencies of government be made to the Archives. A number of recommendations were designed to correct the existing situation, to prevent its recurrence and to ensure that valuable historical documents receive proper care and that worthless records be systematically destroyed.

The Report dealt at some length with the work of the Historic Sites and Monuments Board which was commended for its accomplishments on a modest budget. The Commissioners observed that much has yet to be done to preserve what remains of historic buildings and to mark the sites of important events in Canadian history. It recommended that it be made possible for the Historic Sites and Monuments Board to undertake a much more comprehensive program and that the Board be reconstituted and provided with permanent secretarial assistance. Immediate measures were urged for the restoration of the Halifax Citadel, one of Canada's great military monuments which is fast falling into complete ruin.

A variety of problems with which Canadian universities are now faced were reviewed at length and particular concern was felt for the low estate to which the study of the humanities has fallen. The financial plight of the universities was considered in detail and a strong argument advanced in support of federal aid to education (*see p. 337*).

Closely linked with the consideration of aid to universities were proposals for the creation of a system of national scholarships. The Commission recommended that existing grants to the National Research Council for scholarships be maintained, that a system of post-graduate scholarships be introduced for students engaged in the study of the humanities, the social sciences and law, and that funds be made available to provide exchange scholarships for scholars and students from other countries. It urged a comprehensive system of scholarships at the undergraduate level, proposing 100 annual scholarships of \$1,000, 250 scholarships of \$500, 2,000 bursaries of \$500 a year and the establishment of a loan fund open to students whose work is acceptable to their university authorities. In addition, the Commission proposed further scholarships and grants for persons engaged in the arts and letters but not enrolled in university. These scholarships would be given to artists, musicians, men of letters and students or practitioners of broadcasting, films and the press.

In the final chapter of the Report, the Commission recommended in considerable detail the establishment of a new semi-independent body to be known as the Canada Council for the Encouragement of the Arts, Letters, Humanities and Social Sciences. Outlines were given of the structure of this organization, partly administrative, partly advisory in nature, which would be financed by federal funds but would have a large measure of independence in its operations. In brief, this Council would have functions similar to those of both the Arts Council of Great Britain and the British Council. In addition, the proposed Council (its short title to be the Canada Council) would assume the duties of a national commission for UNESCO and would work to the greatest extent possible through existing voluntary organizations which it would be the Council's principal duty to strengthen financially and otherwise. The Canada Council would be composed of fifteen appointed members, representative of the various cultures and regions of Canada. The Commission recommended that the Canada Council establish a central office of information on those aspects of the arts, letters, humanities and social sciences that fall within its competence. The duty of the Council, moreover, would be to encourage Canadian

music, drama and ballet by such means as the underwriting of tours within Canada, and the establishment of awards to young Canadians of promise and also to strive to increase the knowledge of Canada abroad by arranging tours by Canadian lecturers and by performers in music and the allied arts. The Commission proposed that the Council arrange abroad exhibitions of Canadian art in its varied forms. The Canada Council would administer the system of post-graduate scholarships to be created in the arts, letters, humanities and the social sciences.

At the end of the Report, the Commissioners observed that, "We are under no illusion that the results which we trust may be achieved from the creation of the Canada Council can be attained cheaply; indeed, we observed in the introduction to this part of our Report that if we in Canada want a more generous and better cultural fare we must pay for it. It is obvious that the system of scholarships and awards mentioned above and the furtherance of the work of UNESCO in Canada would cost considerable sums of money". However, "if all our recommendations were accepted, the total figure might in isolation appear substantial; but in comparison with the costs of other activities of Government, it would be modest, almost insignificant".

Although the Canadian press and public have been far from unanimous in their attitude towards the recommendations, there has been a widespread conviction that the Report is a work of real distinction and a very great landmark in the development of Canada as a united and cultivated community.

Section 1.—The Relationship of Art to Education*

Fine Art Schools, Galleries and Museums.—Fine art appears as an elective subject in the curricula of the faculties of arts in a number of universities, where it may be taken as one subject among five for a year or two; in some, e.g., Acadia University, N.S., there are six or more elective courses. In Mount Allison University, N.B., and in the University of Saskatchewan, there is a sufficient number of courses to allow the taking of a Bachelor degree with specialization in fine art. At the University of Toronto, Ont., an Honour B.A. in art and archæology is offered as well as graduate work in this field. Departments of fine arts have been opened by McGill University (1948-49), and the University of British Columbia (1949-50) and re-opened by McMaster University (1951).

There are also schools of art not requiring any fixed academic standing for admission, which are concerned more with the technical development of the artist. The most widely known of these are:—

Nova Scotia College of Art, Halifax, N.S.

École des Beaux-Arts, Quebec, Que.

École des Beaux-Arts, Montreal, Que.

School of Art and Design, Montreal Museum of Fine Arts, Montreal, Que.

Ontario College of Art, Toronto, Ont.

University of Manitoba School of Art, Winnipeg, Man.

Provincial Institute of Technology and Art, affiliated with the University of Alberta, Calgary, Alta. (Summer session at Banff, Alta.)

Vancouver School of Art, Vancouver, B.C.

Courses in these schools vary in length with the requirements of the individual student, but may extend over as many as four years. Summer schools of art are sponsored by some of the foregoing institutions, by universities, and by various independent groups.

* Revised under the direction of Dr. H. O. McCurry, Director, National Gallery of Canada, Ottawa.

Public art galleries and museums in the principal cities perform valuable educational services among adults and children. Children's Saturday classes, conducted tours for school pupils and adults, radio talks, lectures and often concerts are features of the programs of the various galleries. In many cases these institutions supply their surrounding areas with travelling exhibitions, while the National Gallery of Canada carries on a nation-wide program of this nature.

The principal art galleries and museums* are:—

New Brunswick Museum, Saint John, N.B.
 Museum of the Province of Quebec, Quebec, Que.
 Montreal Museum of Fine Arts, Montreal, Que.
 National Gallery of Canada, Ottawa, Ont.
 National Museum of Canada, Ottawa, Ont.
 London Public Library and Art Museum, London, Ont.
 Art Gallery of Toronto, Toronto, Ont.
 Royal Ontario Museum, Toronto, Ont.
 Art Gallery of Hamilton, Hamilton, Ont.
 Willstead Library and Art Gallery, Windsor, Ont.
 Winnipeg Art Gallery, Winnipeg, Man.
 Edmonton Museum of Arts, Edmonton, Alta.
 Vancouver Art Gallery, Vancouver, B.C.

The National Gallery of Canada.—Founded in 1880 by the Marquis of Lorne, the National Gallery at first served only as an exhibition gallery. Provided with an Advisory Arts Council in 1907, and incorporated under a Board of Trustees in 1913, it has assembled its permanent collection largely during the past 40 years. This collection of pictures and sculpture, prints and drawings, representing the styles of past and present of various parts of the world was assembled for public enjoyment, study, and the improvement of arts and industrial products, and as the necessary basis for any program of art education.

The collection of the National Gallery to-day is of international repute and is accessible to the whole country by means of catalogues, photographs and colour reproductions and to a limited extent by loans. The Canadian section, naturally the most inclusive, is the best available source for the study of Canadian art. A number of the more important recent additions to the permanent collection have been in the field of French painting which for some time had been unavoidably neglected because of insufficient funds. *Chevaux de courses* by Degas and *Portrait de paysan* and *Forêt* by Cézanne are outstanding examples acquired from the Vollard collection. The presence of this famous collection in Canada accounts for one of the most interesting chapters in the Gallery's history. Formed by Ambroise Vollard (1867-1939), the French connoisseur, art dealer and publisher, it was taken to Portugal in 1940 and then consigned to the United States. The Royal Navy seized it at Bermuda on suspicion that it had come under Nazi control and was being sent to America under false pretences. It was then deposited in the National Gallery of Canada for safe-keeping. In 1948 it was released to the owners and in 1950 the sisters of Vollard allowed their part of the collection to be exhibited in Canada, an event which caused considerable interest throughout the country. Three other French paintings were presented by H.S. Southam, C.M.G., LL.D., of Ottawa: *L'Evasion* by Daumier and *Dans le bois: neige* and *Femme aux gants* by Courbet. Works by Van Gogh and Redon were purchased and acquisitions in other departments included works by Tiepolo and Augustus John. Canadian paintings include

* A complete list of Canadian art museums, societies and schools is included in the Canadian section of the current issue of the *American Art Annual* (Washington, American Federation of Arts).

a representative selection of contemporary work and additions to the collection of earlier painting. Drawings by Guardi, Claude, Sébastien Bourdon, Adriaen van Ostade, Constable, Renoir, Rouault and others have also been added. Prints included examples by Rembrandt, Goya (a complete set of the first edition of the *Tauromaquia*) and Rouault.

In 1951, exhibitions of the art of other countries included: *Scottish Painters*, *Contemporary Irish Painting*, *Louis Corinth*, *Pageant of Britain*, *Swedish Children's Art*, *Sculpture by Mestrovic*, *Vollard Collection*, *Ukrainian Folk Arts*, and *Paintings by J. M. W. Turner*. Among the Canadian exhibitions held were the *Sarah Robertson Memorial Exhibition*, the designs submitted for *Massey Medals for Architecture and Industrial Design 1950 B.C.-A.D. 1950*. A large Canadian exhibition sent to the National Gallery of Art, Washington, D.C., was opened on Oct. 29, 1950, by the Canadian Ambassador to the United States and was later shown in San Francisco, San Diego, Santa Barbara, Seattle and Vancouver.

The National Gallery carries out a program of extension work throughout the country. The majority of the exhibitions mentioned above, as well as the annual offerings of the chartered art societies and a variety of smaller collections, are available to the entire country and are widely circulated. About 30 such exhibitions are toured and a total of some 150 separate showings are thus held annually under the auspices of the National Gallery of Canada. In addition, individual loans of material from the collection are made to a number of centres in all parts of the country each year. In this way actual works of art are constantly being brought to the attention of the public. Sets of reproductions are also sent on tour of localities which have not the facilities for handling original works of art.

The latest major development in the general educational work of the National Gallery was established in 1948—an Industrial Design Section set up as the result of public interest in bringing the design of Canadian goods up to the best international standards and in fostering distinctive Canadian designs. A number of exhibitions on Canadian industrial art have been held in various parts of the country.

Other methods of education in the arts apply more specifically to young people and are designed, in part, to supplement regular school work. The Gallery provides written lectures illustrated by lantern slides on all aspects of art history, reproductions of paintings with introductory texts for art appreciation, school broadcasts, classes for school children at the Gallery, exhibitions of children's art, conducted tours of the Gallery's collections and educational demonstrations, public lectures at Ottawa, and lecture tours throughout Canada.

The National Gallery also maintains an art film library. Silk screen prints by Canadian artists, already famous in many parts of the world as the result of their distribution during the War, are available to schools and the public generally. These and the facsimile colour reproductions published by the National Gallery are listed in the free leaflet, *Reproductions, Publications, and Educational Material*. The magazine *Canadian Art*, in the publication of which the National Gallery takes a leading part, has doubled its circulation since 1945.

Speaking highly of the Gallery's work over many years despite serious difficulties, the Report of the Royal Commission on National Development in the Arts, Letters and Sciences* made recommendations for the extension and improvement of its exhibition and education services; increases in funds, staff and facilities;

* Ottawa, Queen's Printer, 1951. See also *Royal Commission Studies, a Selection of Essays prepared for the Royal Commission*. Ottawa, Queen's Printer, 1951.

maintenance and increase where possible of present appropriations for acquisitions; and, as soon as possible, a new building containing adequate facilities for display, storage, circulation of exhibitions, repair and restoration of paintings.

Other Art Organizations.—The leading art organizations of national scope, exclusive of museums and art galleries, include the following:—

Association of Canadian Industrial Designers
 Canadian Arts Council*
 Canadian Group of Painters
 Canadian Guild of Potters
 Canadian Handicrafts Guild
 Canadian Museums Association†
 Canadian Society of Graphic Arts
 Canadian Society of Painter-Etchers and Engravers
 Canadian Society of Painters in Water Colour
 Canadian Society of Landscape Architects and Townplanners
 Community Planning Association of Canada
 Federation of Canadian Artists
 Royal Canadian Academy of Arts
 Royal Architectural Institute of Canada
 Sculptors Society of Canada

Section 2.—The Educational and Cultural Functions of the National Film Board‡

Generally, the function of the National Film Board as defined in the National Film Act, 1950, is to produce and distribute films “designed to interpret Canada to Canadians and other nations”. The Board, in addition, is required to represent the Government of Canada in its relations with persons engaged in commercial motion picture film activity for the Government or for any government department; to engage in film research and to make results available to the film industry; to advise the Governor in Council in connection with film activities; and to discharge other duties relating to film activity in accordance with directions by the Governor in Council.

Publication of the Royal Commission Report on National Development in the Arts, Letters and Sciences brought attention to the functions of the Board and “their proper interpretation in relation to Canadian national life and culture”.

The National Film Board reaches Canadians through distribution of 16 mm. films produced for Canadian audiences; and through commercial theatres by the production and distribution of theatrical films without which Canadian audiences would see very few Canadian productions. The Board is currently producing more than 30 theatrical films annually and almost 100 non-theatricals.

The number of theatrical bookings of National Film Board short productions in the last nine months of 1951 increased by about 70 p.c. over the same period of 1950. In addition to the *Canada Carries On* and *Eyewitness* series in English (*En avant Canada* and *Vigie* in French), the Board also supplies newsreel features on Canadian subjects for Canadian commercial distribution. The tour of Canada,

* An account of the Canadian Arts Council and a list of its constituent bodies appears in the 1951 Year Book, p. 308.

† Formed in 1947 with the object of improving the services of museums as educational institutions by promoting co-operation among themselves, by exchange with other countries and by the training and securing of expert staffs.

‡ Prepared under the direction of W. Arthur Irwin, Government Film Commissioner, National Film Board. The non-educational services of the National Film Board are outlined in Chapter XXVIII. See also Chapter II, p. 85.

in 1951, by Her Royal Highness, the Princess Elizabeth and His Royal Highness the Duke of Edinburgh was recorded in the Board's first full-length production in colour, *Royal Journey*. In addition to widespread Canadian distribution, *Royal Journey* is being shown in the United States, the United Kingdom, Europe, South Africa, Australia, New Zealand and some parts of Asia.

The non-theatrical program is based on a nation-wide system of film circuits, film councils and libraries. The program is deeply rooted in community activities and the films are shown in about 3,450 clubs, schools, churches and community halls. It is estimated that more than 10,000,000 Canadians will attend National Film Board non-theatrical showings during 1952. Operation of film circuits is progressively being turned over to voluntary community groups. Touching on this phase of film distribution, the Royal Commission Report called it "a remarkable example of improvisation with limited resources". Film councils—voluntary groups promoting wider use of documentary films—now number 338, an increase of 30 over last year. Forty new libraries were established, bringing the total to 305. More than 4,000,000 school children are being reached annually at approximately 60,000 school showings.

There are still many rural areas that rely on the National Film Board for films and film services. Free programs for both children and adults in rural areas are released monthly. In addition, the field officers of the National Film Board are available to assist in the organization of self-operating circuits. The latter are taken over by the area-film councils which, like their counterparts, the community-film councils, purchase their own projection equipment, train projectionists, organize workshops on film selection and use, and arrange film festivals where informational films produced in Canada and abroad are shown to the public.

In addition to providing monthly programs and technical assistance from its field staff, the National Film Board deposits large blocks of films in provincial and community film libraries on a free-loan basis.

In co-operation with federal departments, film libraries have been established in the specialized fields of health, welfare, medicine and biology, physical fitness and industry. Additions to these libraries are circulated across the country in preview blocks before being deposited in a central library from which they can be borrowed. The Board also offers a wide variety of information services, including instructional material on the selection and use of the films and filmstrips, discussion guides, teachers' notes, and film and filmstrip catalogues. The Board has deposited well over 25,000 films in local libraries.

Many different types of organizations, both governmental and voluntary, co-operate with and assist the Board in the distribution of films. The University of Alberta Extension staff is an example of technical instruction provided by a non-governmental body. The University of British Columbia administers rural film circuits. In the Maritime Provinces, distribution of National Film Board films to adult audiences is directed by the Department of Education. In some provinces, federations of agriculture assist with rural film distribution.

Films are being used to help interpret their own country to persons in the more settled parts of Canada and to bring to Canadians in more remote areas a picture of how people in other parts of Canada live. In schools and settlements throughout Yukon Territory, the Northwest Territories, Ungava and Labrador, National Film Board programs are being shown regularly for the native and white populations. Federal and provincial authorities co-operate in this work.

The story of Canada is also being told abroad in films as part of the function of interpreting Canada to other nations. Non-commercial distribution of films and filmstrips abroad is now carried on through 56 posts of the Departments of External Affairs and Trade and Commerce through National Film Board offices at London, New York and Chicago, and through universities, schools and other educational agencies. Non-theatrical showings of Canadian films abroad are attended by approximately 10,000,000 persons a year in 42 countries. Moreover, prints of National Film Board films are sold abroad at the rate of over 3,000 a year. This theatrical distribution is already well established in the United Kingdom and the United States and is rapidly expanding in Continental Europe and Latin America. A recent interesting development has been the advance in the use of National Film Board newsreel films and productions on United States television networks. Bookings currently are running at 1,500 annually. The National Film Board also provides newsreel feature coverage about Canada for United Kingdom, United States, and South American distribution.

Section 3.—The Educational and Cultural Functions of the Canadian Broadcasting Corporation*

Many hours of educational or semi-educational programs are broadcast annually by the Canadian Broadcasting Corporation in the English and the French languages. Whether these programs are directed to children or adults, entertainment is combined with information whenever possible. Spoken word programs cover a very wide range of interests and are presented as readings, talks, discussions, documentary programs, dramatizations or in forms combined with music.

Pre-School Broadcasts.—While many story programs for pre-school-age children are broadcast purely as entertainment, a special series has been developed to give young children, especially in remote areas, many of the benefits of kindergarten training. This series, *Kindergarten of the Air*, is broadcast Monday to Friday for children from two and one-half to six years of age. Planned with the advice of kindergarten experts and representatives of the Canadian Home and School Federation, the Federation of Women's Institutes and the Junior League, it includes stories, songs, mental games, keeping-fit exercises, information about animal life and nature study, and encourages good habits of hygiene, eating and relaxation. The program is intended primarily for home listening but it has been found useful in many organized kindergarten groups and classes.

School Broadcasts.—In an average school year, more than 1,000 school programs, mostly in dramatized form, are broadcast to all parts of Canada. The CBC also provides upwards of 30 minutes daily broadcasting of specifically planned programs by departments of education to meet classroom requirements. These "supplementary aids" help teachers to stimulate student imagination and strengthen motives for study. The National School Broadcasts series are planned by the National Advisory Council on School Broadcasting to promote among students a stronger consciousness of Canada and its achievements. During the 1951-52 season, six of these series were planned for students from Grade III to senior high school. These were: *Voices of the Wild*, on Canadian wildlife; a series on conservation of natural resources; *They Made History*, dealing with highlights in Canada's history; *Life in Canada Today*, a series of documentaries; *Julius Caesar*, a

* Prepared by Donald Manson, General Manager, Canadian Broadcasting Corporation.

full-length performance of Shakespearean drama; and *Things We Are Proud Of*, comprising five programs contributed by broadcasting organizations in Great Britain, Australia, New Zealand, South Africa and Ceylon, relating outstanding features in the development of those countries.

The Department of Transport issued more than 8,000 free receiving licences to schools throughout Canada in 1951-52, indicating that at least one-third of all English-language schools were radio-equipped and using school broadcasts.

In the Province of Quebec, the CBC's French network broadcasts *Radio-College*, a series of weekly programs dealing especially with the fine arts, music, literature, theatrical arts, sciences, religion and philosophy. These broadcasts are not designed for classroom use, being of a more adult nature than those on the English-language networks, and scheduled, in the main, for other than school hours.

Particulars of school broadcasts are contained in the manual *Young Canada Listens*, and details of the French network series in the manual *Radio-College*. Both are published annually by the CBC.

Adult Education.—Programs of an adult-education nature take many forms. Issues of the day are discussed on such round-table programs as *Citizens' Forum*, now in its eighth year, and its French network counterpart, *Les Idées en marche*. Both are produced in co-operation with the Canadian Association for Adult Education, and organized listening groups which form part of the audience carry on their own discussions of the topic following the broadcast. This Association co-operates with the Canadian Federation of Agriculture in the presentation of *National Farm Radio Forum*, a broadcast concerned primarily with discussion of topics of interest to Canadian farmers. This program has developed into the largest listening-group project of its type in the world. *Cross Section*, a series dealing with economic and social issues—a look at industrial Canada through the eyes of business, labour and the consumer—is typical of the dramatized documentary form in which many programs of an adult-education nature are presented. Understanding of human relationships is fostered by such series as *In Search of Ourselves*, presenting stories and a commentary by a psychiatrist, psychologist, or sociologist of people with mild emotional disturbances; *In Search of Mental Health*, showing recent improvements in the treatment of mentally ill people in Canada; and *Life With the Robinsons*, a dramatized story of human relations in a typical, ordinary family. On the French network, *Radio-Parents* presents broadcasts designed to help parents solve their problems, and general questions sent in by parents on the subject of child care are answered by psychologists in the series *Le Courrier de Radio-Parents*.

More than 2,600 hours are devoted annually to informative talks on a very wide range of topics including international affairs, consumer information, politics, business and labour interests, community activities and social problems, literature and creative writing, science, nature and sports.

The CBC maintains an office and a resident correspondent at United Nations Headquarters, and an overseas bureau with headquarters at London, England. For programs such as *CBC News Roundup*, voice reports are brought in from many parts of the world.

Music and Drama.—Music and drama are two of the chief items in the CBC schedules. Music makes up about 50 p.c. of the network programs, while those in the 'drama and feature' category take up the largest percentage of time

among spoken-word programs. High-quality programs of both types are heard frequently at good listening hours. Apart from regular broadcasts by Canadian symphony orchestras, the Metropolitan Opera programs, and similar programs, much fine music is presented on the CBC Wednesday Night program—a full evening on the Trans-Canada network for more discriminating listeners. The many periods of “standard” classical music on this broadcast are accompanied by programs giving expression to Canadian composers and contemporary composers of other countries. Chamber music by various groups as well as choral music originating at many points in Canada, and recitals by Canadian artists and those of international reputation are important features of the music schedules. Productions by the CBC Opera Company (which in the 1951-52 season included *La Bohème*, *The Marriage of Figaro*, *Manon*, *Peter Grimes*, and two Canadian operas, *Deirdre* and *Basmatchkin*) and by the CBC Light Opera Company are heard throughout the season.

During an average year more than 1,000 plays are produced by the CBC for the networks, chief among them the annual *Stage* series broadcast Sunday nights to a national audience, and longer items for the CBC Wednesday Night program. In this category, plays have ranged from adaptations of the humorous stories of Stephen Leacock to two-hour performances of Shakespearean dramas and such plays of Lister Sinclair's *Socrates*, Bernard Shaw's *Candida*, Christopher Fry's verse drama *The Lady's Not For Burning*, and *Crime Passionel* by the contemporary French writer Jean-Paul Sartre. A recent innovation has been the production of “anthologies” made up of prose, poetry and music, and programs such as *Vienna: The Glorious Age* which presented in dramatic words and music a comprehensive picture of an era.

Lighter fare is broadcast from production points across Canada, and includes a very high percentage of work by Canadian writers, both English and French.

Television.—Preliminary plans for CBC television broadcasting, expected to get under way at Toronto and Montreal in the autumn of 1952, call for a limited amount of broadcasting per day in the initial stages, and a program pattern roughly paralleling that developed for radio, but on a much smaller scale. As in radio programming, the objective of combining entertainment with information will be followed where possible.

The Royal Commission on National Development in the Arts, Letters and Sciences, in its report in 1951 which, after an intensive review of broadcasting in Canada, endorsed in the main the CBC's programming pattern for radio, had this to say about television programs:—

“It has been suggested that television may eventually supersede radio; if this should happen, most of what we have said of radio programs will apply to television. Again, television may develop and come to concentrate on its more immediately popular capacities such as variety shows, and sports and news actualities, leaving more serious programs to radio and films. For such television programs it will be essential to ensure the maintenance of good taste and a suitable and adequate use of Canadian material and Canadian talent The element of control necessary and now exercised by governments and by producers in radio and in the cinema will be far more important and far more difficult to achieve in the persuasive and subtle medium of television. We think it important also that, as with radio, the Board of Governors of the CBC endeavour at once to import the best programs from abroad, while developing so far as possible Canadian talent in Canadian programs.”

Section 4.—Public Libraries

The biennial survey of libraries in Canada, 1948-50, reports increased activity in the field of library service. At the national level, first steps have been taken toward the establishment of a National Library for Canada.

In June 1948, Parliament approved the principle of establishing a Bibliographic Centre at Ottawa and the preparation of a National Union Catalogue which would provide a nucleus for the reference department and the catalogues for a National Library. A National Library Advisory Committee was established with representatives from each province under the chairmanship of the Public Archivist. After some months of preparatory work, the Centre came formally into existence with the appointment of a Director and an initial staff on May 1, 1950.

The Bibliographic Centre has proceeded with the preparation of the National Union Catalogue. The catalogues of 21 libraries, covering more than 1,250,000 volumes, have been reproduced by means of microfilm. These reproductions will be co-ordinated to provide an index of the holdings of the main libraries in Canada, including information on the location of rare books that may be obtained on the basis of inter-library loans. Eventually the National Library will offer procurement services but, in the meantime, the catalogue represents a record of the book resources of Canadian libraries and provides a means for more effective use of those books.

A second project of the Bibliographic Centre is the monthly publication of *Canadiana*, a bilingual list of commercial and government publications relating to Canada. At present the Centre has a small stock of reference books that will be supplemented by volumes not in steady demand and located in various libraries across the country, and by standard publications of the United States. The index will be expanded to include holdings relating to Canada in the libraries of Great Britain, the United States and France.

Local Public Libraries.—As local institutions of education and culture, public libraries are mainly the responsibility of the municipalities in which they are located. In certain provinces, the provincial library authorities supplement the efforts of the municipalities by annual grants, by assistance to building-construction funds and by aid in the procurement of book stock. The public libraries in the cities represent the largest proportion of all such service in Canada. The libraries of seven cities, each with a population of over 100,000, held 36 p.c. of the entire book stock reported in the survey of libraries, and were responsible for 51 p.c. of all the expenditures recorded. The libraries in a second group of 29 cities, with populations of from 25,000 to 100,000, held 17 p.c. of the book stock and accounted for 22 p.c. of the expenditures. In the smaller cities with populations of from 10,000 to 24,999, 26 libraries held 9 p.c. of the book stock and were responsible for 9 p.c. of the expenditures. In all, the city libraries held 62 p.c. of the books and accounted for 82 p.c. of all expenditures on public library service.

It is estimated that some form of public library service is available to about 75 p.c. of the population but that barely 50 p.c. of the population has anything approaching adequate library service. In the small towns, villages and rural communities many public libraries are supported and administered by organizations or associations within the communities. Including these, less than 12 p.c. of the rural population has public library service and, where it does exist, it is in most cases quite inadequate.

Tables 1 to 4 summarize data on the holdings, service, income and expenditures of the public libraries of Canada for 1949. More details are available in the D.B.S. publication *Survey of Libraries 1948-50*.

1.—Book Stocks in Public Libraries, classified by Types and by Provinces, 1949

Province or Territory	Adult Fiction	Adult Non-fiction	Juvenile	Unclassified	Total
	No.	No.	No.	No.	No.
Newfoundland.....	—	—	24,164	92,403	116,567
Prince Edward Island.....	19,742	30,684	20,896	—	71,322
Nova Scotia.....	9,302	12,110	9,317	69,992	100,721
New Brunswick.....	22,780	47,427	8,421	32,412	111,040
Quebec.....	34,681	59,486	29,378	802,624	926,169
Ontario.....	969,428	1,673,337	716,998	835,250	4,195,013
Manitoba.....	38,775	75,607	35,093	7,068	156,543
Saskatchewan.....	100,402	124,790	51,879	56,260	333,331
Alberta.....	172,856	87,493	72,348	31,337	364,034
British Columbia.....	124,294	241,202	131,442	42,882	539,820
Yukon Territory.....	5,600	4,100	500	—	10,200
Totals.....	1,497,860	2,356,236	1,100,436	1,970,228	6,924,760

2.—Book Circulation by Public Libraries, classified by Types and by Provinces, 1949

Province or Territory	Adult Fiction	Adult Non-fiction	Juvenile	Un-classified	Total	Borrowers
	No.	No.	No.	No.	No.	No.
Newfoundland.....	—	—	—	285,590	285,590	22,606
Prince Edward Island.....	63,453	22,800	115,782	—	202,035	15,956
Nova Scotia.....	52,868	24,367	32,259	47,732	157,226	8,934
New Brunswick.....	71,924	18,659	28,479	50,100	169,162	15,091
Quebec.....	209,171	91,337	184,126	841,976	1,326,610	44,262
Ontario.....	4,422,059	2,620,641	4,871,359	2,766,578	14,680,637	780,122
Manitoba.....	247,929	188,332	274,186	50,215	760,662	46,845
Saskatchewan.....	434,959	123,015	278,593	72,813	909,380	54,299
Alberta.....	310,770	112,609	531,896	596,746	1,552,021	84,080
British Columbia.....	1,133,843	590,391	784,256	17,802	2,526,292	158,385
Yukon Territory.....	—	—	—	6,500	6,500	125
Totals.....	6,946,976	3,792,151	7,100,936	4,736,052	22,576,115	1,230,705

3.—Expenditures of Public Libraries, by Provinces, 1949

Province or Territory	Books and Periodicals	Binding and Repair	Salaries of Library Staff	Wages of Building Staff	All Other Expenditures	Balance at End of Year	Total
	\$	\$	\$	\$	\$	\$	\$
Newfoundland.....	—	—	—	—	—	—	—
Prince Edward Island.....	6,658	—	12,725	—	3,291	319	22,993
Nova Scotia.....	5,076	—	11,098	644	4,640	1,773	23,231
New Brunswick.....	6,500	741	18,454	1,675	6,730	1,639	35,739
Quebec.....	106,989	61,409	228,079	7,052	122,759	28,484	554,772
Ontario.....	582,711	80,377	1,449,536	136,687	620,424	135,897	3,005,632
Manitoba.....	39,593	5,932	103,484	12,000	30,376	3,556	194,941
Saskatchewan.....	36,681	6,115	94,118	12,299	39,982	6,723	195,918
Alberta.....	56,957	8,734	142,468	11,501	38,179	7,819	265,658
British Columbia.....	99,866	22,678	361,155	23,190	134,926	11,446	653,261
Yukon Territory.....	210	—	600	—	105	682	1,597
Totals.....	941,241	185,986	2,421,717	205,048	1,001,412	198,338	4,953,742

4.—Receipts of Public Libraries, by Provinces, 1949

Province or Territory	Balance from Preceding Year	Local Taxes	Provincial Grants	Other Grants or Donations	All Other Receipts	Total
	\$	\$	\$	\$	\$	\$
Newfoundland.....	—	—	—	—	—	—
Prince Edward Island.....	—	—	22,993	—	—	22,993
Nova Scotia.....	2,853	11,050	—	5,169	4,159	23,231
New Brunswick.....	11	32,250	—	97	3,381	35,739
Quebec.....	15,642	374,650	60,900	53,823	49,752	554,772
Ontario.....	123,218	2,267,005	403,649	11,743	200,017	3,005,632
Manitoba.....	4,398	187,925	200	126	2,292	194,941
Saskatchewan.....	11,230	167,201	4,228	4,128	9,131	195,918
Alberta.....	2,978	223,021	11,373	9,179	14,107	265,658
British Columbia.....	6,917	586,029	20,475	1,000	38,840	653,261
Yukon Territory.....	661	—	900 ¹	—	36	1,597
Totals.....	167,908	3,854,131	524,718	85,270	321,715	4,953,742

¹ Territorial grant.

Regional Libraries.—In order to improve the library services in rural districts and in the smaller communities, all provinces except New Brunswick and Quebec have made some effort to establish regional libraries or modifications of such libraries. Prior to World War II, regional library service, or an adaption thereof, existed in British Columbia, Prince Edward Island, Newfoundland and Ontario. Since 1946, Saskatchewan has put into operation the North-Central Saskatchewan Regional Library with headquarters at Prince Albert, and is organizing a second section of this library. Nova Scotia has four new regional libraries in operation, the Annapolis Valley Regional Library, the Colchester-East Hants Regional Library, the Pictou County Regional Library and the Cape Breton Regional Library. Manitoba and Alberta have passed legislation providing for the organization of such libraries.

In the provinces where regional libraries are functioning, efforts have been made to improve the services rendered by increasing the number of distribution agencies and constructing new local libraries to act as regional depots.

Complete statistics for the new libraries were not yet available at the time of going to press. Services of the older regional libraries are given in Table 5.

5.—Statistics of Libraries Organized for Regional Collaboration, Alternate Years 1941-49

Library or Library Co-operative and Year	Branch Libraries	Deposit Stations	Schools	Total Library Agencies	Population Served	Registered Borrowers
	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	1941 23	—	255	278	95,047	20,889
	1943 23	4	320	347	91,000	20,289
	1945 23	7	309	339	92,000	23,922
	1947 23	—	352	375	94,000	13,193
	1949 24	—	408	432	94,000	13,278
Ontario County Library Co-operatives.	1941 ..	..	..	7	..	..
	1943 ..	..	..	9	..	..
	1945 ..	..	..	11	..	..
	1947 ..	..	..	12	..	..
	1949 ..	..	..	13	..	..

**5.—Statistics of Libraries Organized for Regional Collaboration,
Alternate Years 1941-49—concluded**

Library or Library Co-operative and Year	Branch Libraries	Deposit Stations	Schools	Total Library Agencies	Popu- lation Served	Regis- tered Borrowers
	No.	No.	No.	No.	No.	No.
Fraser Valley Union, B.C.....1941	27	67	59	153	36,752	21,865
1943	25	65	60	150	36,752	14,838
1945	10	108	72	190	60,153	13,996
1947	11	109	84	204	74,225	24,127
1949	26	111	105	242	98,365	23,654
Okanagan Valley Union, B.C.....1941	36	—	24	60	15,547	8,496
1943	35	—	26	61	18,151	7,595
1945	34	—	25	59	23,384	9,068
1947	48	—	47	95	60,116	12,725
1949	53	—	58	111	61,776	16,311
Vancouver Island Union, B.C.....1941	32	9	31	72	22,959	7,375
1943	32	9	32	73	22,902	7,156
1945	29	10	24	63	25,985	8,641
1947	31	12	37	80	50,211	10,399
1949	37	21	63	121	57,108	12,015
	Volumes	Circulation	Expenditures			
	No.	No.	Book Stock	Salaries	Total	
			\$	\$	\$	
Prince Edward Island.....1941	57,526	227,239	5,874	7,733	16,031	
1943	60,805	203,875	6,348	8,324	17,072	
1945	63,707	171,058	5,161	8,110	15,863	
1947	67,498	174,133	4,696	13,300	21,907	
1949	71,322	202,115	7,163	13,232	25,346	
Ontario County Library Co- operatives. 1941	13,215	96,195	3,691	..	5,843	
1943	19,867	145,413	7,851	..	9,410	
1945	35,267	223,390	11,182	..	20,037	
1947	43,173	249,408	19,052	..	28,965	
1949	95,955	657,968	38,844	..	109,832	
Fraser Valley Union, B.C.....1941	36,326	226,160	3,715	6,915	14,053	
1943	40,204	199,794	3,946	7,494	16,075	
1945	43,026	263,852	4,900	10,239	19,014	
1947	47,552	289,647	7,000	15,747	32,725	
1949	54,235	323,977	9,757	21,917	39,768	
Okanagan Valley Union, B.C.....1941	17,033	117,566	1,882	4,226	7,831	
1943	19,166	109,366	2,342	4,475	8,509	
1945	22,164	124,648	4,039	4,627	10,774	
1947	30,255	191,025	10,107	9,743	30,135	
1949	46,280	273,823	10,918	16,370	36,656	
Vancouver Island Union, B.C.....1941	21,128	126,982	2,230	3,573	10,402	
1943	22,332	109,163	1,907	5,989	9,907	
1945	25,480	123,846	2,231	6,243	10,814	
1947	29,347	127,024	4,822	13,128	22,073	
1949	34,488	140,598	5,650	16,858	29,982	

In Newfoundland there are 25 centres which act as regional distributing depots under the supervision of a provincial regional librarian with headquarters at St. John's. The most recent statistics on these libraries show 35,000 volumes, 15,205 borrowers and 141,064 loans.

Staffs.—The personnel employed by the public and regional libraries included about 1,400 librarians and their assistants engaged in full-time work, supplemented by more than 1,000 persons working on a part-time basis. About one-third of the full-time staff had professional rating—a Bachelor of Library Science degree or

an equivalent diploma. In addition, 184 staff members, or about 13 p.c. of the total, had taken courses of training ranging in length from six weeks to less than a year.

Salary schedules have recently improved considerably, especially in the larger cities where more than 40 p.c. of the employees have full professional training. On the basis of duties and responsibilities, the median salaries of the full-time personnel of public libraries in the cities were as follows:—

<i>Population of City</i>	<i>Chief Librarians</i>	<i>Heads of Branches or Divisions</i>	<i>Other Librarians</i>	<i>Other Classifications</i>
	\$	\$	\$	\$
10,000 – 24,999	2,667	1,950	1,563	1,375
25,000 – 99,999	3,550	2,491	1,772	1,577
100,000 or over	4,417	3,000	2,070	1,618

Expenditures on salaries represented more than 50 p.c. of total library expenditures for 1949. In cities over 100,000 population, salaries accounted for 54 p.c. of the total budget; the second group of cities reported 53 p.c., and the smaller cities 50 p.c.

Children's Libraries.—One of the primary objectives of the libraries in Canada is guidance in the formation of good reading habits. This work is begun in the children's departments of the libraries, in special children's libraries, and in the schools. Efforts are made to interest children in the public libraries by attractive quarters and special programs conducted by persons with specialized training and particular aptitude for this work. Some 320,000 boys and girls were registered borrowers from the public libraries in 1949, and each read an average of 18 books during the year.

Auxiliary Services.—In recent years the public libraries have supplemented their main services with educational and cultural programs in music, fine arts and related subjects. Audio-visual programs are now a part of the services of the public libraries in many centres. More than 30 city libraries provided film services for their communities in 1949. The films are owned by the libraries or are on deposit from the National Film Board for circulation in the area. Some 32,000 programs, with audiences totalling 3,739,990 people, were reported by the libraries including those held in the libraries and those sponsored by community organizations outside.

Increasing use of the libraries is made for public meetings. About 700 public lectures, 316 forums and 2,387 meetings were held in public libraries during 1949.

Income and Expenditures.—Local taxes represented 81 p.c. of current income from all sources. Grants from the provinces have increased six-fold in recent years to the point where they now represent more than 10 p.c. of all income in comparison with slightly more than 3 p.c. in 1941. Total expenditures in 1949 were two and one-quarter times those of 1941 and about \$1,000,000 in excess of those of the previous biennium. At that, the current expenditures on public libraries represent only 35 cents per capita—a rate varying considerably in the different provinces: Ontario 65 cents, British Columbia 56 cents, Alberta 32 cents, Manitoba 25 cents, Saskatchewan 23 cents, Prince Edward Island 21 cents, Quebec 14 cents, New Brunswick seven cents and Nova Scotia four cents. The new regional libraries in Nova Scotia and Saskatchewan are, however, not included in the above rates.

The per capita rate established by library authorities for minimum services is \$1; and for maximum services \$4. While no province has as yet reached the minimum rate, it is encouraging to note that the per capita rate for all of Canada in 1949 was double that of 1941.

Academic Libraries.—University and college libraries, 90 in English-language institutions and 88 in French-language institutions, reported 6,314,000 volumes in 1949. This represented less than 100 volumes for each full-time university-grade student in Canada. Fourteen of these libraries had more than 100,000 volumes, 13 libraries reported from 50,000 to 99,000 volumes and 36 libraries reported 25,000 to 49,000 volumes. The remaining 115 libraries had under 25,000 volumes, 61 of them containing under 10,000 volumes.

Centralization of book stock in certain cities presents a major problem to post-graduate students and scholars in Canada. It is a prime factor in the establishment of the National Union Catalogue mentioned earlier and in the ultimate establishment of a National Library in Canada.

On the basis of the returns from libraries for 1949, an estimate was made of the library resources available to university students in the cities where the larger universities are located. The libraries included in the estimate are the academic libraries, the reference departments of the public libraries and the government and special libraries considered of value to university students. The results show the comparative poverty of book resources for certain of these areas. The volumes available per full-time university student, including both undergraduate and post-graduate students, were as follows: Ottawa 530, Quebec city 278, London 246, Hamilton 198, Montreal 162, Halifax 130, Kingston 113, Toronto 108, Winnipeg 90, Fredericton 75, Saskatoon 60, Vancouver 53 and Edmonton 51. The students registered in these cities represent 87 p.c. of all university-grade students in the full-time session.

Government Libraries.—Returns for 1949-50 were received from 59 libraries supported by the Federal Government, 38 of them at Ottawa, and from 34 libraries supported by provincial governments. The Library of Parliament with more than 500,000 volumes represented 23 p.c. of the total of 1,915,302 volumes reported by the federal libraries. The provincial libraries, considerably fewer in number, reported 1,020,416 volumes.

Section 5.—Canada and the United Nations Educational, Scientific and Cultural Organization

The Sixth General Conference of United Nations Educational, Scientific and Cultural Organization, which was held at Paris in the summer of 1951, agreed on certain projects and made administrative decisions which are of particular interest to Canada.

In the field of education the decision to extend the co-operation of UNESCO to the Programs of Technical Assistance of the United Nations illustrates the co-ordination of action which Canada endeavours to promote between the UN Specialized Agencies in order to obtain concentration of effort and, hence, better results. The assistance which the Secretariat of UNESCO will be able to provide to Member States in organizing regional seminars on adult education by sending suitable documentation, by preparing working papers and by providing the services of experts, is also considered an appropriate initiative.

The most important recent change in the administrative field was the decision to hold the General Conferences every two years rather than annually in order to have more time between Conferences to carry out the projects and to survey their progress. The admittance to UNESCO of the German Federal Republic, Japan, the Kingdom of Laos, the Kingdom of Cambodia and the State of Viet Nam brought the total number of Member States to 64.

Direct relations between the Government of Canada and UNESCO are conducted by the Department of External Affairs. Canadian participation includes the work of Canadian delegations to the General Conferences, the administration of UNESCO fellowships and scholarships tenable in Canada, the selection of Canadian delegates to international seminars sponsored by UNESCO, assistance in the organization of seminars in Canada, and the distribution of UNESCO publications to interested associations and educational institutions.

Since signing the instrument of admission to UNESCO, Canada has supported many measures designed to help the agency accomplish its work in a consistent and practical way and has contributed money, time and specialist personnel. In addition to its regular annual contribution (\$319,022 in 1952), Canada, in 1947, made available to the Canadian Council for Reconstruction through UNESCO a sum of \$200,000 for the purchase of materials "for the purposes of educational, scientific and cultural reconstruction". This was the beginning of a happy co-operation between the Government of Canada and some 30 voluntary associations which joined their forces in the establishment of a specialized institution (CCRU) to assist in educational and cultural relief and reconstruction.

Following a joint appeal to the Canadian public by the National Council for the United Nations Appeal for Children in Canada and the CCRU, an additional amount of \$939,250 was received by CCRU to further its educational reconstruction program which included projects to collect books in Canada for universities abroad, to supply artists in foreign countries with essential materials, and to bring students from abroad to Canada on scholarships. A number of direct grants amounting to \$190,186 were made by CCRU to various Canadian and foreign institutions engaged in educational reconstruction.

In brief, Canada has tried to maintain a well-balanced contribution to UNESCO. The support given to the activities of this agency is considered an essential part of Canadian support of the United Nations general program of peace, well-being and security.

PART III.—SCIENTIFIC AND INDUSTRIAL RESEARCH*

Section 1.—The National Research Council

Organized research in Canada on a national basis dates from 1916 when the Canadian Government established the Honorary Advisory Council for Scientific and Industrial Research under a Committee of the Privy Council. Provision was made thereby for the planning and integration of research work, the organization of co-operative investigations, post-graduate training of research workers, and the prosecution of research through grants-in-aid to university professors. This was the basis of the Council's work from 1916 to 1924.

* Prepared under the direction of E. W. R. Steacie, O.B.E., M.Sc., Ph.D., D.S.C., F.R.S.C., F.R.S., President, National Research Council.

A Special Committee of Parliament was appointed to study a recommendation for the establishment of national laboratories and endorsed the proposal but financial difficulties intervened. However, public opinion made it possible to have the Research Council Act passed by Parliament in 1924. Temporary laboratories were secured and research on the utilization of magnesian limestones for refractories was carried out so successfully that a wartime industry, established during World War I, was re-established on a large scale. As a result, in 1929-30 the Government provided funds for new laboratories.

The National Research Building on Sussex Street, Ottawa, was opened in 1932 and in 1939 construction was begun of the aerodynamics building on a 130-acre site adjacent to the Ottawa Air Station. Later several other buildings were erected on this site, including separate laboratories for research on engines, gas and oil, hydraulics, structures, and wood-working and metal-working shops. Since then these facilities have been enlarged and extended and new buildings have been provided for engineering, low-temperature studies and high-speed aerodynamics. In 1951-52, construction was proceeding on applied chemistry laboratories, a thermodynamics building, offices and laboratories for the Division of Building Research, and an extensive laboratory building for the Division of Radio and Electrical Engineering.

The Atomic Energy Project at Chalk River, Ont., also was administered by the National Research Council from Feb. 1, 1947, to Mar. 31, 1952. On Apr. 1, 1952, operation of the atomic energy project was assumed by a new Crown company, Atomic Energy of Canada Limited, and proceeded as previously under policies laid down by the Atomic Energy Control Board. The President of the new Company is C. J. Mackenzie, C.M.G., F.R.S.

A Prairie Regional Laboratory, constructed on the campus of the University of Saskatchewan, was opened in June 1948, and a Maritime Regional Laboratory is under construction on Dalhousie University campus at Halifax, N.S.

The National Research Council consists of the President, two Vice-Presidents (Scientific), one Vice-President (Administration) and sixteen other members, each of the latter group being appointed for a term of three years and chosen to represent industry, labour or research in one of the basic natural sciences. Many of the members are drawn from the science departments of Canadian universities.

In addition to its basic research functions, the Council operates an Information Service with a field staff of technical officers who assist the smaller industries across Canada in bringing their operating problems to the attention of the Council. With the extensive library facilities available to the Council, it is usually possible to provide the required information at very short notice.

The Council aids industry in two other important ways. A free and constant flow of personnel and information is maintained between the Council laboratories and industrial laboratories, the aim being to have Canadian industry use the Council's laboratories just as the units of a large company use their own laboratories as sources of scientific information and assistance. The Council also undertakes for any firm, under contract, research problems that cannot be solved by private consulting and testing laboratories, and also obtains assistance, in return, from many companies. The Council has long-standing and intimate contacts of this co-operative kind with many Canadian industries in many fields, most notably in refractories, oils, metals, chemicals and transport.

Associate Committees were established by the National Research Council early in its history and have been continued to date. Throughout the years, hundreds of specialists have accepted invitations from the Council to serve on committees and have brought the wealth of their knowledge and experience to bear on the solution of research problems put before them. Members give their time and effort to these special studies without fee or recompense, and their assistance is a source of great strength to the Council.

Assisted research grants have been made by the Council since its inception in 1916. These awards are given to heads of university science departments for the purchase of needed equipment and the employment of junior helpers, usually students. Aid of this kind has been of considerable assistance in enabling the universities to put into operation the excellent graduate schools that now exist in Canada.

Scholarships and fellowships for graduate work in science and medicine, granted in 1951-52, included 57 bursaries (\$600), 73 studentships (\$900), 29 fellowships (\$1,200), 17 special scholarships of varying amounts, and six post-doctorate overseas fellowships. In addition, 27 medical-research fellowships and two dental fellowships were awarded. Medical research is carried on by means of grants to accredited workers and fellowships for graduate research in the various medical schools and university hospitals.

Principal Activities, 1951-52.—The threat of unsettled foreign relations once again began to make itself felt during 1950 and Canada, in common with other members of the United Nations, was compelled to divert considerable industrial and other activities along defence production lines, and to orient its research organization accordingly to provide the best possible aid to the military services. The emphasis on defence production needs during 1950-51 at the National Research laboratories, at Ottawa, was chiefly in aeronautical, building, and radar research and to a less extent in applied chemistry, applied biology, physics, and information services.

A large part of the laboratory research in chemistry and physics carried on at the National Research Council laboratories is now being done under the post-doctorate fellowship plan inaugurated in 1948 and developed since that time. In the Chemistry Division particularly, a substantial proportion of the salary allotment is reserved each year for the employment of post-doctorate fellows, recruited from the universities of the world, to work with members of the regular staff. The scheme has been very successful, providing as it does for a continuous turnover of younger men with a variety of training.

In June 1951, the post-doctorate fellows employed in the laboratories included 56 scientists from 24 universities of 12 countries. Distribution of fellows by Divisions was as follows: Chemistry, 34; Physics, 17; Radio and Electrical Engineering, 1; and 4 at the Atomic Energy Project, Chalk River, Ont.

The post-war growth of the aviation industry and the current world situation called for increased effort in aeronautical research for defence purposes and led to the creation in January 1951 of a National Aeronautical Establishment and the formation of a National Aeronautical Research Committee. The Committee is under the chairmanship of the President of the National Research Council and the other members are the Chairman of the Defence Research Board, the Chief of Air Staff, Royal Canadian Air Force, and the Chairman of the Air Transport Board. The objective of the Establishment is the achievement of an orderly development of facilities in aeronautical research and a closer integration of military and civil requirements in this field.

The National Aeronautical Establishment will be administered as a joint military and civil establishment and will be operated by the National Research Council as a separate agency along lines somewhat similar to those on which it operated the Atomic Energy Project at Chalk River. Administration policy will be determined by the National Aeronautical Research Committee. Thus, members of the staff of the aeronautical laboratories will serve in a dual capacity; on peacetime problems they will work as Council employees and, on military projects, as members of staff of the National Aeronautical Establishment.

Despite the necessity of their active participation in the defence preparedness program, the Council's several laboratory divisions continued during 1951-52 to carry on an impressive amount of peacetime research on a wide variety of subjects. Staff, including 1,200 at Chalk River, was maintained at a level of about 3,000. Included in this total were 825 university graduates, of whom 440 held the bachelor's degree, 160 the master's, and 225 the doctorate degree in science.

A few highlights from the 1951-52 reports of the several laboratory divisions give some idea of the variety of work undertaken and the wide scope of the National Research Council's interests.

Atomic Energy.—The Atomic Energy Project has been preoccupied with the detailed design of a new nuclear reactor to be constructed at Chalk River, Ont. This is a heavy water reactor like the existing NRX pile, but of greater power and improved design.

Operation of the NRX pile has been improved and its high flux of neutrons has been applied to many special investigations. A major advance has been applied to unravel complex sequences of radioactive disintegrations. An event which follows another even by less than a thousandth of a micro-second can be distinguished and timed by electronic circuits used with scintillation counters. This has been applied in studying the radioactive isotopes thulium-170, gold-199, iodine-131, and neptunium-239.

Hitherto undiscovered isotopes have been identified as a result of certain reactions in the NRX pile. These include calcium-41 with a half-life of 120,000 years and actinium-229 with a half-life of 66 minutes.

In co-operation with the Department of Agriculture, insects have been tagged with sufficient radioactive cobalt to be detectable 13 feet away. Observers equipped with counters, which register radioactivity as clicks in earphones, have followed marked insects liberated in the bush to see how far and fast they travel. Radioactive phosphorus was injected into sawfly larvae infected with parasites, and the radioactivity was still detectable in the second generation of parasites.

Mechanical Engineering.—Supersonic tunnels have been built in the Division of Mechanical Engineering. The first of these wind tunnels for work on high-speed aircraft has been placed in operation and is being tuned up. The tunnel has a working section 10" x 10" in which speeds up to five times the speed of sound can be obtained. A second tunnel now being built has a larger working section, 16" x 30", and will have a range up to three times the speed of sound.

A laboratory for work on gas turbines, compressors and combustion is nearing completion and the heavy equipment is under construction. Fuels for gas turbines, Canadian crudes as a source of gas turbine fuels, combustion, thrust augmentation, blading and application to locomotives are some of the studies being made. Present aircraft gas turbines are being tested at low temperatures and different methods

are being investigated for their protection against icing. Canadian fighters and transports are being tested in co-operation with the Royal Canadian Air Force and aircraft firms, very comprehensive instrumentation having been designed and built for this work.

The model-testing basin for work on ship models has been very active with investigations proceeding both for the Royal Canadian Navy and for the shipbuilding industry. Studies in the latter field have included the design and operation of lake bulk-freighters, an ice-breaking ferry, fishing boats, and shallow-draft tugs.

Building Research.—Construction has been started on a laboratory and office building at Ottawa for the Division of Building Research. The Division's research station at Saskatoon, Sask., began regular operation during 1951, and first results of tests on wood-frame walls with air spaces will be published early in 1952. Studies on building in the North were continued and plans are being made for a permafrost research station. A draft of the first section of the revised National Building Code is now being circulated throughout Canada.

Experimental work on concrete slab foundations for houses without basements was begun in 1951, at Ottawa. Two slabs have been constructed, each heated electrically and carrying a building comparable to conventional house construction.

Development of test sites to study the effects of weather on various building materials in selected locations has been continued, and it is expected that all sites will be equipped and in use by the end of 1952. The appointment of a climatologist to the Division staff has further emphasized the importance of climate in relation to building research. Work on the correlation of the performance of standard test huts with climate has been expanded to include huts at Churchill, Man., and at Pennsylvania State College, U.S.A.

The Division co-operates with other government agencies on problems allied with building research. Special studies have been made for the Department of National Defence and many technical problems of the Central Mortgage and Housing Corporation have been investigated.

Radio and Electrical Engineering.—The Division of Radio and Electrical Engineering is very active in defence production work. In connection with radar and its application to artillery fire control, satisfactory progress has been made in redesigning experimental equipment, in engineered form, suitable for industrial production. Detection of aircraft by radar is also being highly developed. A recent redesign of a mobile medium-range radar used during World War II is now going into production on a large scale.

Work is proceeding on the design and positioning of "suppressed" antennæ to ensure their perfect performance on high-speed aircraft where the aerodynamic drag of external radio antennæ is so great that it is necessary to enclose them within the skin of the aircraft.

NRC's million-volt impulse generator is being used continuously for testing electric power-transmission equipment. The generator applies sudden high-voltage impulses, similar to lightning strokes, to power-line insulators, transformers and cables. The need for better insulating materials in the electrical industry in Canada requires, in turn, the development of accurate methods of testing materials already available. NRC is working on methods of testing transformer insulating oil and on the difficult problem of electrical breakdown characteristics of liquids.

Power supplied commercially to most types of electrical apparatus is subject to undesirable fluctuations. Regulators combining electrical and mechanical methods are used, but such stabilizers are not suitable for use with precision electronic instruments because they react too slowly. A new type has been developed which can correct supply fluctuations within one-tenth of a second, and maintain an output of several kilowatts constant within a fraction of one percent.

Applied Biology.—Work in applied biology includes investigations on food preservation, the synthesis, composition and utilization of plant and animal products, the effects of environment on animals, and statistical interpretation of biological data. A few examples follow.

Citric acid is now being produced on a laboratory scale by submerged mould fermentation of sugar-beet molasses. Seventy percent of the sugar is converted to acid in less than three days. This fermentation rate is about three times as high as that of other known methods. High-temperature treatment of certain vegetable oils has resulted in improved flavour stability but with some decrease in nutritive value. Taste tests of frozen whole milk and of frozen evaporated milks prepared by two different methods indicate that the whole milk keeps better. The keeping qualities of the evaporated milks are affected by the method of concentration.

When foods and certain other biological materials are quick-frozen for preservation, the question arises as to whether the ice formed becomes continuous throughout the frozen material. Work with an artificial system indicates that cell membranes or concentrated cell saps may act as barriers to continuous ice formation thus preventing loss of flavour on thawing.

The work of the Prairie Regional Laboratory at Saskatoon, Sask., is closely allied with the Applied Biology Division at Ottawa. New antibiotic and enzyme-producing fermentations are being studied there, and radioactive tracers are being used to obtain a better understanding of certain fermentation mechanisms. Many bacterial antibiotics have been checked for possible use in the control of plant diseases in western Canada.

Crop utilization studies include work on starches, proteins, oils from rapeseed, flax, sunflower and similar crops, and the straw residue. Methods have been developed for the production of undenatured gluten for use in improving the baking properties of lower grade wheat flours. Fibre wallboard produced in a pilot plant using straw as the pulp material has proven superior to standard commercial boards.

Chemistry.—Corrosion of metals is a long-term study in the Division of Chemistry. A survey is being made of the various types of corrosion inhibitors used in automotive cooling systems. Typical inhibitors proposed for use in new and reclaimed antifreeze solutions are being tested.

Investigations are proceeding on the quality of motor-vehicle paints and test methods are being developed for the assessment of insulating varnishes, finishes for electronic equipment, undercoatings for vehicles, and fire-retardant paints which are used on structures where the fire hazard is an important consideration.

In the field of aviation, the Division has won recognition for its rain-repellent preparation, FC-10, for use on aeroplane windcreens. Lately, the procedure for applying this preparation has been further simplified.

Mothproofing of fabrics is of great importance, not only to the householder, but also to the military services because of the necessity of storing and shipping clothing consisting of wool or part-wool fabrics. Shrink-resistant treatment for

wool textiles is another laboratory problem. Blending of wool with other fibres, notably nylon, gives a more serviceable product. Recommendations of the textile laboratory have been incorporated in purchase specifications for army socks.

In organic chemistry, the structures of two new alkaloids, thermopsine and rhombifoline have been elucidated, and a new type of alkaloidal structure has been synthesized. An infra-red microscope has been designed and made with which it is possible to identify one one-hundredth of a milligram of an organic compound by its infra-red absorption spectrum. The instrument is being used in the study of the metabolism of cortisone and other steroid hormones.

Physics.—In the Division of Physics, one of the problems worked on during 1951-52 was concerned with improving the efficiency of fog horns. By the use of modern acoustical theory, it was found possible to make certain changes, and one of these, the exponential horn, showed an improvement of efficiency by a factor of 20 compared with previous installations. Another horn of the catenoidal design was found to be 59 p.c. better than the one of exponential shape. To attain the full efficiency of the new horns, careful regulation of pitch is required.

Extensive studies of cosmic rays are being made from recordings of Geiger counters at an Arctic post and at Ottawa to obtain information on the relationship between cosmic-ray activity and meteorological and magnetic conditions, and to aid in unravelling the mysteries of the atomic nucleus. Another research group is using photographic emulsions to record collisions between cosmic rays and atomic nuclei. Evidence has been obtained which indicates that both charged and neutral mesons (subatomic particles) are emitted when a cosmic ray strikes the nucleus of an atom. Further work may shed light on elementary interactions between particles having billions of volts of energy. Cosmic rays offer the simplest method for this study.

Valuable information on the genesis of mica and the age of the earth is being obtained by X-ray diffraction studies of the nucleus of dark circles, called pleochoric haloes, which frequently appear in mica.

Successful experiments, designed to secure information needed for the construction of a new type of radiation unit for cancer treatment, have been concluded using two large radioactive cobalt sources.

Increased accuracy in temperature measurements, important to industry, has been obtained by the precise determination of certain fixed points on the International Temperature Scale. The Division can now establish, with the highest accuracy, temperatures over a range of more than 1,000°.

Spectroscopic studies of light emitted by chemical compounds have been used to increase the available information on their molecular structure. Investigations have been completed in nitric oxide, aluminium chloride, nitrous oxide, methyl chloroform, methyl cyanide, and pyridine. An improved method of producing sulphur monoxide has been developed and the structure of this compound has been accurately established; it contains two sulphur atoms and two oxygen atoms instead of one of each as might have been assumed on other bases. Examination of the composition of distant planets this year yielded a new discovery when some features in the spectra of the planets Uranus and Neptune were reproduced in the laboratory and it was thereby shown that hydrogen is abundant in the atmospheres of these planets. Work in theoretical physics is laying a firm foundation for the correlation of results of scientific speculation with experimental data.

Section 2.—Other Scientific and Industrial Research Facilities

Aside from the work of the National Research Council, which is the central national research organization, research is carried on by the Departments of Agriculture, Mines and Technical Surveys, Resources and Development, Fisheries, the Board of Grain Commissioners and the Dominion Observatories. These bodies have trained permanent scientific staffs for investigation and research in their own fields. The research and experimentation carried on by the Science Service of the Department of Agriculture is outlined in Chapter X, pp. 381-382. The work of the Experimental Farms System is described at pp. 349-352 of the 1948-49 edition of the Year Book. Specialized work in scientific forest research is described in Chapter XI, pp. 460-463. Investigational work carried on by the Department of Fisheries and the Fisheries Research Board are given in Chapter XIV, pp. 572-575.

The Board of Grain Commissioners employs a staff of seven chemists and 21 assistants in the main research laboratories for milling, baking, malting, etc., while the Dominion Observatories carry out research in the fields of solar physics, astrophysics, seismology, terrestrial magnetism, gravity and other studies.

A Defence Research Board was established in 1947 to correlate the Special Scientific requirements of the Armed Forces with the scientific research activities carried on by the National Research Council and industry generally. The research stations of the Board deal with only those problems that are peculiar to national defence, collaborating with existing research facilities in other fields. The organization of the Board is covered in Chap. XXVII.

Universities often show bold initiative in exploring the field of scientific research but with the limited facilities at their disposal the task of carrying their discoveries to a conclusion is not always easy. Government and industrial laboratories are often able to pick up and carry on where the universities leave off.

A number of research foundations have their own special fields of research. The Ontario Research Foundation at Toronto, Ont., established in 1928, is an independent non-profit-seeking scientific organization available to the public and to industry for assistance in matters of a technological character.

The Banting Research Foundation supports the work of the Banting and Best Chair of Medical Research in the University of Toronto and aids medical research throughout Canada.

The Rockefeller Foundation assists various agencies in Canada in the furtherance of scientific research in medical science, natural science, social science and public health.

CHAPTER IX.—SURVEY OF PRODUCTION*

CONSPECTUS

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SECTION 2. PROVINCIAL DISTRIBUTION OF PRODUCTION.....	371		

NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

The scope of the Survey of Production is limited to the actual production of commodities. The activities of such industries as transportation, communication, trade, finance and service are entirely excluded. This is in contrast to the scope of Gross National Production which encompasses all industries. Net production, or "value added", is generally considered the most significant measure of production and is consequently stressed in the following analysis. It is obtained by deducting from the total value of output for each industry, the cost of materials, fuel, purchased electricity and process supplies consumed in the production process.† This measurement comes closest to representing the concept involved in the contribution of each industry to gross national product at factor cost. Apart from variations in the statistical structure, the main difference is that value added, as computed for each commodity-producing industry, includes the cost of such services as insurance, advertising, transportation, communications, etc. In the compilation of the national accounts, the contribution of these services to gross national production at factor cost is classified to the non-commodity industries from which they originate.

The 1949 national totals include Newfoundland's production for forestry, mining, electric power, construction and manufactures. Statistics on agriculture, fishing, trapping and custom and repair for that Province are not yet available.

Current Trends.—In 1949, net value of commodity production in Canada broke all records as it rose to nearly \$10,000,000,000, a gain of about 7 p.c. over the total value recorded in 1948‡ and 250 p.c. over the 1938 level. The total net value rose steadily from \$2,859,000,000 in 1938 to a wartime peak of \$6,737,000,000 in 1944. After a moderate recession occasioned by the problems of conversion to peacetime production, it resumed its rapid advance in 1947. Higher prices accounted for the greater part of the gain over 1948, although there was some increase in volume in the majority of industries. Estimates indicate that further

* Prepared in the Business Statistics Section, Research and Development Division, Dominion Bureau of Statistics.

† A description of the method used in computing gross and net production figures is given in D.B.S. Bulletin *Survey of Production*.

‡ Nearly \$75,000,000 of the 1949 increase was due to the inclusion of part of Newfoundland's value of production.

expansion in production was achieved in 1950 and 1951. Between 1949 and 1950, the volume index of industrial production rose more than 7 p.c. and preliminary calculations show that an additional rise of about 7 p.c. occurred in 1951. Wholesale prices in 1950 averaged about 6 p.c. higher than in 1949 and registered a further advance of nearly 14 p.c. in 1951. After a slight increase in 1950, total non-agricultural employment rose approximately 7 p.c. in 1951. Although the value of agricultural production levelled off in 1950 as compared with 1949, near-record grain crops in 1951 resulted in a considerable advance in the value of farm output.

Substantially higher price levels, sustained demand for consumer goods both in Canada and abroad, the rapid development of the industrialization program and, more recently, the outbreak of hostilities in Korea and the subsequent expansion of defence industries have all contributed to record high levels of production in the post-war years.

Section 1.—Industrial Distribution of Production

The figures in Table 1 show that the net value of Canadian commodity production in most industrial groups rose considerably during the post-war period. Value of net output in the mining, construction and manufacturing industries advanced rapidly from 1946 to peak levels in 1949. The 90 p.c. gain in the value of mineral production in that comparison was the result of both higher prices and expanded physical output. High levels of building activity and the rapid advance in costs of construction combined to account for the marked advance of 161 p.c. in the total for the construction industry. The net value of manufacturing production in 1949 was over 50 p.c. higher than in 1946. In this case, the greater part of the increase was due to higher prices although volume of output rose nearly 15 p.c. The electric-power industry expanded steadily over the period, although the value rose at a more moderate pace since it was less influenced by the increase in prices. In the agriculture and forestry groups, net value receded slightly in 1949 from the record levels of 1948, but remained far above the 1946 totals. The value of the fisheries industry, after rising moderately in 1947 and 1948 recorded a drop in 1949, and returns from trapping showed a tendency to decline.

Table 1 classifies industry into primary and secondary production, although there is a certain amount of duplication since many stages of manufacturing are closely connected with primary activities. Fish-packing plants, for instance, are operated in close relationship with the fishing fleets, sawmills and pulp and paper mills with forest operations, and smelters and refineries with metal mining. The net values of production of such processing industries are given separately in Table 3, to show the degree of this duplication between primary industries and manufactures which is eliminated in Tables 1 and 2.

1.—Net Values of Production, by Industries, 1944-49

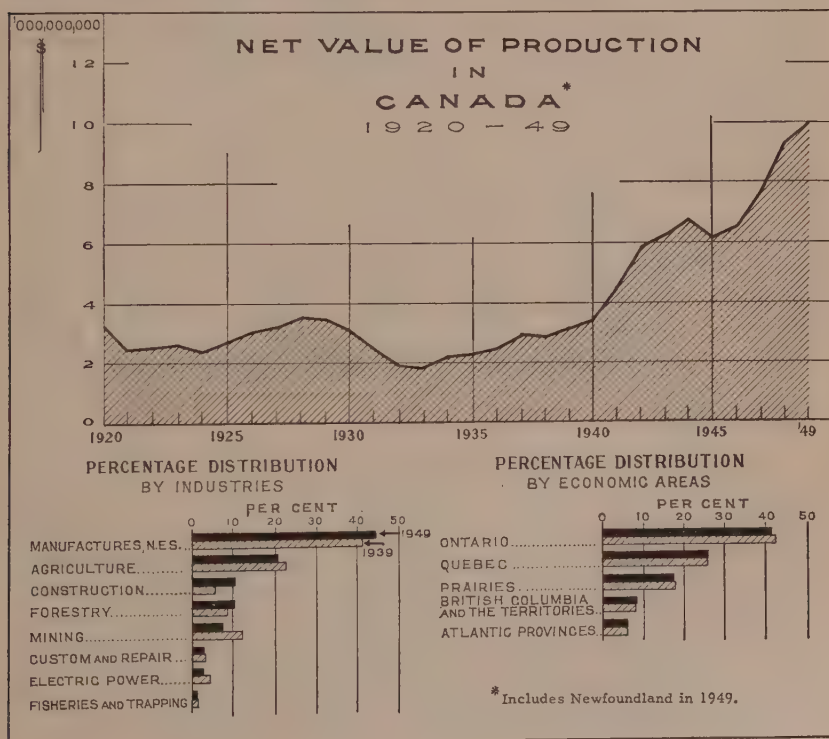
NOTE.—Net production represents total value under a particular heading, less the cost of materials, fuel, purchased electricity and supplies consumed in the production process.

Industry	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
Agriculture.....	1,533,807,000	1,269,362,000	1,468,027,000	1,507,519,000	2,045,693,000 ²	2,027,304,000
Forestry.....	507,357,605	550,970,574	711,026,833	953,918,800	1,070,439,308	1,056,403,789 ¹
Fisheries.....	76,889,487	103,106,209	107,908,162	110,088,471	127,212,417 ²	119,315,946
Trapping.....	23,988,773	21,505,447	31,077,867	16,842,966	20,178,077	15,296,615
Mining.....	454,022,468	413,276,800	422,074,303	552,309,949	727,950,430	800,217,336 ¹
Electric power.....	209,757,908	210,006,712	220,511,067	232,245,222	248,963,255 ²	270,126,982 ¹
Less duplication in forest production ³	61,357,833	64,501,946	73,516,000	89,058,000	89,824,000 ²	100,451,890
Totals, Primary Production.....	2,744,465,408	2,503,725,796	2,887,109,232	3,283,866,408	4,140,612,487 ²	4,188,212,778
Construction.....	249,037,017	267,957,837	408,695,662	601,539,452	829,644,000	1,066,649,000 ¹
Custom and repair....	165,174,000	178,200,000	213,273,000	247,086,000	279,211,000	292,277,000
Manufactures.....	4,015,776,010	3,564,315,899	3,467,004,980	4,292,055,802	4,940,369,190	5,330,566,434 ¹
Totals, Secondary Production.....	4,429,987,027	4,010,473,736	4,088,973,642	5,140,681,254	6,049,224,190	6,689,492,434
Less duplication in manufactures ³	437,045,069	428,243,781	518,517,965	737,453,025	838,363,278	880,638,436 ¹
Grand Totals...	6,737,407,366	6,085,955,751	6,457,564,909	7,687,094,637	9,351,473,399 ²	9,997,066,776

¹ Includes Newfoundland.

² Eliminates duplication between the agriculture and forestry totals.

³ Eliminates duplication under "Manufactures"; this item includes sawmills, pulp and paper mills, etc., which are also included under other headings above.



2.—Percentage Analyses of the Net Value of Production, by Industries, 1944-49

Industry	Percentages of Net Value in 1938					Percentages of Total Net Production				
	1944	1946	1947	1948	1949	1944	1946	1947	1948	1949
Agriculture.....	249.2	238.5	244.9	332.3	329.3	22.8	22.7	19.6	21.9	20.3
Forestry.....	207.5	290.7	390.0	437.7	432.0	7.5	11.0	12.5	11.4	10.6
Fisheries.....	216.0	303.2	309.3	357.4	335.2	1.1	1.7	1.4	1.4	1.2
Trapping.....	365.0	472.8	256.3	307.0	232.7	0.4	0.5	0.2	0.2	0.1
Mining.....	121.3	112.7	147.5	194.4	213.7	6.7	6.5	7.2	7.8	8.0
Electric power.....	147.4	154.9	163.2	174.9	189.8	3.0	3.4	3.0	2.7	2.7
Less duplication in forest production.....	176.3	211.3	255.9	286.9	288.7	0.9	1.1	1.2	1.1	1.0
Totals, Primary Production	198.3	208.6	230.5	299.1	302.6	40.7	44.7	42.7	44.3	41.9
Construction.....	141.0	231.3	340.5	469.6	603.8	3.7	6.3	7.8	8.9	10.7
Custom and repair.....	151.6	195.8	226.8	256.3	268.3	2.5	3.3	3.2	3.0	2.9
Manufactures.....	281.2	242.7	300.5	345.9	373.2	59.6	53.7	55.9	52.8	53.3
Totals, Secondary Production.....	258.5	238.6	299.9	353.0	390.3	65.8	63.3	66.9	64.7	66.9
Less duplication in manu- factures.....	182.5	216.5	307.9	350.1	367.7	6.5	8.0	9.6	9.0	8.8
Grand Totals.....	235.7	225.9	265.2	327.1	349.7	100.0	100.0	100.0	100.0	100.0

3.—Net Value of Production in the Processing Industries, 1944-49

Industry	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
Fish curing and pack- ing.....	22,066,801	30,529,102	31,084,775	41,081,688	39,468,334	41,140,022 ¹
Sawmilling.....	96,528,955	103,153,766	129,408,392	190,514,978	196,936,196	186,120,981
Pulp and paper.....	174,492,103	180,401,885	258,164,578	356,084,900	412,770,470	423,375,527
Non-ferrous metal smelting.....	123,303,038	89,898,878	69,565,922	115,798,652	146,830,891	181,907,847
Cement.....	6,882,354	9,416,426	12,930,058	13,449,437	17,704,519	21,077,322
Clay products.....	5,478,923	6,938,409	9,563,690	11,266,933	13,602,445	14,076,742
Lime.....	5,005,235	4,663,859	4,910,127	5,763,244	7,284,638	8,223,272
Salt.....	3,287,660	3,241,456	2,890,423	3,493,193	3,765,785	4,716,723
Totals.....	437,045,069	428,243,781	518,517,965	737,453,025	838,363,278	880,638,436

¹ Excludes Newfoundland.

In 1949, manufacturing continued to be by far the leading group in producing new wealth. Although its position was less predominant than in the wartime economy of 1944, manufacturing still accounted for more than one-half of the total net value of commodity production in 1949. Agriculture remained the second most productive group, contributing about 20 p.c. of total net value. The relative importance of the forestry and the construction industries increased significantly since 1938; in 1949, each of these groups accounted for over 10 p.c. of the total. On the other hand, the mining and electric power industries showed declines, contributing 8 p.c. and 3 p.c., respectively, to the Canadian aggregate in 1949 compared with 13 p.c. and 5 p.c. in 1938.

Section 2.—Provincial Distribution of Production

In the 1946-49 period, each of the provinces (Newfoundland excluded) recorded a substantial increase in net value of output. Ontario, Alberta and Saskatchewan showed the greatest advances, amounting in each case to about 60 p.c. The smallest gain was recorded by Prince Edward Island.

In 1948 each province reached a peak level of production. During 1949, Ontario, Quebec, Nova Scotia and Alberta, made further substantial increases, New Brunswick, Prince Edward Island and Saskatchewan rose more moderately, and Manitoba and British Columbia recorded small recessions. As a result of the higher increases in Ontario, Quebec and Nova Scotia in 1949, these provinces gained in relative importance, their advances being proportionately greater than for Canada as a whole. Manitoba and British Columbia, having shown absolute declines, lost considerable ground, while the other provinces whose gains were lower than the total gain also dropped somewhat in relative importance.

4.—Net Value of Production, by Provinces, 1944-49

Province or Territory	1944	1945	1946	1947	1948 ¹	1949
	\$	\$	\$	\$	\$	\$
Newfoundland.....						74,882,279 ¹
Prince Edward Island.....	18,844,736	20,658,906	22,144,302	19,493,244	27,744,734	28,384,606
Nova Scotia.....	193,557,552	186,931,838	197,329,638	198,468,760	251,872,883	271,185,430
New Brunswick.....	135,117,593	139,435,407	162,700,528	183,102,027	213,325,278	218,423,088
Quebec.....	1,899,824,337	1,716,038,573	1,775,525,027	2,050,946,288	2,430,339,997	2,615,449,241
Ontario.....	2,682,969,260	2,510,200,208	2,557,193,323	3,148,517,907	3,758,300,952	4,114,751,839
Manitoba.....	313,077,535	280,458,384	329,300,254	366,588,138	486,141,707	477,290,300
Saskatchewan.....	528,817,265	339,755,726	388,858,319	458,040,217	611,642,712	618,211,097
Alberta.....	416,117,352	340,703,182	434,902,340	493,641,826	669,662,346	694,863,825
British Columbia.....	543,947,198	547,116,908	583,012,640	761,385,115	891,709,706	869,200,883
Yukon and N.W.T....	5,134,538	4,656,619	6,598,538	6,911,115	10,733,084	14,424,188
Canada.....	6,737,407,366	6,085,955,751	6,457,564,909	7,687,094,637	9,351,473,399	9,997,066,776

¹ Includes only forestry, mining, electric power, construction and manufactures.

5.—Percentages of Total Net Production, by Provinces, 1944-49

Province or Territory	1944	1945	1946	1947	1948	1949
Newfoundland.....	...	...	...	...	...	0.75
Prince Edward Island.....	0.28	0.34	0.34	0.25	0.30	0.28
Nova Scotia.....	2.87	3.07	3.06	2.58	2.69	2.71
New Brunswick.....	2.01	2.29	2.52	2.38	2.28	2.19
Quebec.....	28.20	28.20	27.50	26.68	25.99	26.16
Ontario.....	39.81	41.24	39.60	40.96	40.19	41.16
Manitoba.....	4.65	4.61	5.10	4.77	5.20	4.78
Saskatchewan.....	7.85	5.58	6.02	5.96	6.54	6.18
Alberta.....	6.18	5.60	6.73	6.42	7.16	6.95
British Columbia.....	8.07	8.99	9.03	9.91	9.54	8.70
Yukon and Northwest Territories.....	0.08	0.08	0.10	0.09	0.11	0.14
Canada.....	100.00	100.00	100.00	100.00	100.00	100.00

Per Capita Production.—Per capita net value of production in Canada (exclusive of Newfoundland) in 1949 reached \$757, which surpassed by almost 4 p.c. the previous record of \$729 established in 1948. From 1938 to 1949 the population

of Canada increased by about 17.5 p.c. which may be compared with a rise of 247 p.c. in the net value of production. Per capita output increased from \$256 to \$757 in that period, or by about 196 p.c.

Per capita production in the three Maritime Provinces was well below the national average throughout the period. New Brunswick and Prince Edward Island, however, recorded slightly higher percentage advances than Canada as a whole, but per capita production in Nova Scotia failed to increase as rapidly. Among the provinces, Nova Scotia, New Brunswick and Prince Edward Island occupied seventh, eighth and ninth positions, respectively, in 1949.

Per capita net output in Quebec was \$674 in 1949, a figure somewhat below the Canada average. During the 1938-49 period, however, it rose 197 p.c. compared with the 196 p.c. rise for all Canada. The Province ranked fifth in value of output per capita in 1949, dropping from fourth position in 1938. Per capita production in Ontario rose to \$940 in 1949, continuing well in advance of any other province. The increase since 1938 was nearly 175 p.c., somewhat less than the national average.

Per capita output in Manitoba, amounting to \$631 in 1949, increased well over 200 p.c. since 1938, but remained rather moderate as compared with the Canada average. The Province, ranking fifth in 1938, was sixth in 1949. The fact that 1938 was a depression year for the agricultural economy of Saskatchewan accounts partly for the large percentage gain of 467 p.c. by 1949 in the per capita production of that Province. In the latter year, Saskatchewan ranked fourth in Canada with an output per capita amounting to \$743. The population of the Province actually decreased nearly 9 p.c. during that period. Alberta's per capita output in 1949 was recorded at \$785, the second highest in the country. Production in that Province rose rapidly over the period 1938-49 though the population gained only 13 p.c.

Per capita output in British Columbia in 1949, at \$781, was third highest in Canada. The great advance since 1938 was accompanied by a population increase of nearly 44 p.c.

6.—Per Capita¹ Net Value of Production, by Provinces, 1944-49

Province or Territory	1944	1945	1946	1947	1948 ²	1949
	\$	\$	\$	\$	\$	\$
Newfoundland.....	...	...	...	...	...	217 ²
Prince Edward Island.....	207	225	236	207	298	302
Nova Scotia.....	317	302	325	323	403	431
New Brunswick.....	293	299	340	375	428	430
Quebec.....	543	482	489	553	642	674
Ontario.....	677	628	625	754	879	940
Manitoba.....	431	386	453	496	652	631
Saskatchewan.....	633	408	467	548	730	743
Alberta.....	515	422	542	598	784	785
British Columbia.....	584	577	581	729	824	781
Yukon and Northwest Territories.....	302	274	275	288	447	601
Canada.....	564	504	525	612	729	757³

¹ Based on estimated population figures as given at p. 143.
Table 4.

² Excludes Newfoundland.

³ Not complete. See footnote 1,

Section 3.—Distribution of Industrial Production in Each Province*

Maritime Provinces.—In Prince Edward Island, the net value of agricultural production, the main source of income, contributed about 59 p.c. of the total value in 1949 and showed little change from the previous year. The relative importance of the industry was slightly less than it was in 1938 when it accounted for 61 p.c. of the net output of the Province. A decline from the previous year in the value of fisheries was offset by increased construction activity. In Nova Scotia, more than one-half the rise from 1948 in the value of net output was accounted for by an increase in construction. Declines were recorded in forestry and fisheries while other industries advanced moderately. Compared with 1938, the relative importance of construction and manufactures gained markedly at the expense of agriculture, mining and electric power. In New Brunswick, a drop in the output of the important forestry industry in 1949, compared with the previous year, was offset by a gain in construction. As in Nova Scotia, the secondary industries contributed more to the Province's total net value in 1949 than in the pre-war year of 1938.

Quebec.—The manufactures group, which contributed 63 p.c. of provincial net production in 1949, recorded a gain of nearly 8 p.c. over the previous year and the value of construction advanced more than 34 p.c. The decline in forestry output was offset by an increase in mineral production, while agriculture showed little change. Here also, the primary industries—agriculture, mining and electric power—lost ground to construction and manufactures in the 1938-49 comparison. By contrast, the contribution of the forestry industry was greater than in 1938.

Ontario.—All the principal industries except forestry showed a higher value of output in 1949 than in 1948. The value of manufactures and construction rose 9 p.c. and 27 p.c., respectively, and mining advanced nearly 16 p.c. The relative importance of agriculture and mining in 1949 amounted to 13 p.c. and 6.4 p.c., respectively, compared with 15 p.c. and 14.5 p.c. in 1938. By contrast the contribution of construction and manufactures rose from 6 p.c. and 60 p.c., respectively, to 11 p.c. and 66 p.c. in the same comparison. Forestry also improved its position while the value of electric power lost in relative importance.

Prairie Provinces.—Agriculture continued to dominate the economy of the Prairie Provinces in 1949. In Manitoba, the decline of about 12 p.c. in 1949 from the preceding year in the value of agricultural output was mainly responsible for the drop in the total net output of the Province. In the 1938-49 comparison, the changes in the relative importance of mining and construction were the most marked features. In the pre-war year, the contribution of mining was 10.6 p.c. and that of construction 4.4 p.c. The positions were reversed in 1949, mineral production dropping to 4.1 p.c. and construction advancing to 10.8 p.c.

In Saskatchewan, the drop in the value of mining in 1949 from 1948 was more than offset by advances in agriculture and construction. The relative position of agriculture in Saskatchewan increased from 67 p.c. in 1938 to 77 p.c. in 1949. In contrast to the other provinces, the contribution of the secondary industries declined considerably during that period.

* This analysis takes no account of the deductions for the elimination of duplication between different groups.

In Alberta, the value of mineral production jumped sharply in 1949 over 1948 and, together with a considerable gain in construction, resulted in a higher net output despite a drop in the value of agriculture. The relative importance of mining, construction and manufacturing in the 1938-49 period gained at the expense of agriculture, the contribution of the latter having dropped from 63 p.c. to 52 p.c.

British Columbia.—Net value of production fell off slightly in 1949 from the peak established in 1948. Declines were recorded in forestry, fisheries, trapping, mining and manufacturing; the recession in mining amounted to 16 p.c. The net value of construction, however, rose nearly 19 p.c. The relative importance of all primary industries, except forestry, declined in 1949 from their 1938 positions, the drop in mining being especially notable. By contrast, the contribution of construction and manufactures, following the trend in most other provinces, rose considerably. The relative importance of construction advanced from 5 p.c. in 1938 to 13 p.c. in 1949 while that of manufactures jumped from 38 p.c. to 47 p.c. in the same comparison.

7.—Net Values of Production in Each Province, classified by Industries, 1948 and 1949

NOTE.—Figures available for Newfoundland for 1949 are as follows: forestry, \$38,709,853; mining, \$17,471,590; electric power, \$1,910,629; construction, \$3,196,000; and manufactures, \$32,918,776.

Year and Industry	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	\$	\$	\$	\$	\$
1948					
Agriculture.....	16,579,000	30,932,000	40,304,000	291,469,000	510,537,000
Forestry.....	1,206,939	29,710,433	76,310,968	389,048,344	265,005,103
Fisheries.....	3,390,329	33,124,491	16,482,706	5,306,619	6,393,635
Trapping.....	7,595	254,422	104,933	1,865,826	5,357,209
Mining.....	—	44,069,431	5,959,256	165,762,032	228,112,583
Electric power.....	538,727	7,835,081	5,156,263	96,130,639	82,896,142
Construction.....	2,603,000	34,240,000	26,176,000	194,186,000	345,060,000
Custom and repair.....	1,227,000	10,307,000	6,170,000	85,211,000	106,275,000
Manufactures.....	4,217,680	95,774,483	91,404,150	1,534,214,660	2,486,867,987
Less duplication ¹	2,025,536	34,274,468	54,742,998	332,854,123	278,803,707
Totals, 1948.....	27,744,734	251,872,883	213,325,278	2,430,339,997	3,758,300,952
1949					
Agriculture.....	16,654,000	32,997,000	41,667,000	290,287,000	532,738,000
Forestry.....	1,208,796	26,972,713	69,763,460	371,303,864	261,098,124
Fisheries.....	2,473,747	32,073,225	14,878,858	4,548,377	5,728,289
Trapping.....	7,104	427,495	256,202	1,664,404	3,963,776
Mining.....	—	47,125,183	6,073,542	183,199,468	263,605,255
Electric power.....	655,260	8,381,204	6,255,370	104,106,864	86,255,782
Construction.....	3,766,000	45,257,000	33,281,000	260,825,000	439,776,000
Custom and repair.....	1,284,000	10,685,000	6,459,000	89,199,000	111,248,000
Manufactures.....	4,338,320	102,294,298	91,187,375	1,651,629,668	2,708,554,013
Less duplication ¹	2,002,621	35,027,688	51,398,719	341,514,404	298,215,400
Totals, 1949.....	28,384,606	271,185,430	218,423,088	2,615,449,241	4,114,751,839

For footnote, see end of table.

**7.—Net Values of Production in Each Province, classified by Industries,
1948 and 1949—concluded**

Year and Industry	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	\$	\$	\$	\$	\$
1948¹					
Agriculture.....	227,490,000	465,422,000	389,090,000	73,870,000	²
Forestry.....	13,550,145	7,077,168	16,686,501	271,737,240	106,467
Fisheries.....	5,414,583	1,282,437	636,352	53,653,431	1,527,834
Trapping.....	3,931,845	2,344,846	2,702,049	1,506,933	2,102,419
Mining.....	21,861,157	44,998,172	80,931,360	129,984,244	6,272,195
Electric power.....	13,250,448	8,203,874	10,946,786	23,554,184	451,111
Construction.....	40,883,000	29,744,000	60,370,000	96,382,000	²
Custom and repair.....	16,863,000	12,993,000	15,175,000	25,090,000	²
Manufactures.....	157,646,732	45,053,786	107,134,881	417,675,306	379,525
Less duplication ¹	14,749,203	5,476,571	14,010,583	201,743,632	106,467
Totals, 1948.....	486,141,707	611,642,712	669,662,346	891,709,706	10,733,084
1949					
Agriculture.....	199,738,000	476,913,000	361,918,000	74,392,000	²
Forestry.....	14,542,821	7,339,337	15,570,537	249,738,745	155,539
Fisheries.....	4,800,387	1,025,896	652,545	50,800,613	2,334,009
Trapping.....	2,545,046	1,991,848	1,926,783	834,686	1,679,271
Mining.....	19,670,622	33,809,447	111,162,841	108,944,255	9,155,133
Electric power.....	14,910,607	8,850,909	11,960,694	26,188,784	650,879
Construction.....	51,509,000	34,510,000	75,169,000	114,360,000	²
Custom and repair.....	17,652,000	13,601,000	15,885,000	26,264,000	²
Manufactures.....	167,335,495	47,356,949	114,681,296	409,665,348	604,896
Less duplication ¹	15,413,673	7,187,839	14,062,871	191,987,548	155,539
Totals, 1949.....	477,290,300	618,211,097	694,863,825	869,200,883	14,424,188

¹ Duplication between agriculture and forestry, as well as duplication under manufactures (see footnote 2, Table 1, p. 369).

² None reported.

CHAPTER X.—AGRICULTURE

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Agriculture, including stock raising and horticulture, is the most important of the primary industries of the Canadian people, employing, according to the Census of 1951, 15·6 p.c. of the total labour force and 20·0 p.c. of the labour force males. In addition, agriculture provides the raw materials for many Canadian manufactures, and its products in raw or manufactured form constitute a very large percentage of Canada's exports. The present and potential agricultural land is shown by provinces at p. 19 of this volume.

Section 1.—Federal Government in Relation to Agriculture*

The creation of the Department of Agriculture is provided for in Sect. 95 of the British North America Act (1867), which says, in part, that "in each province, the legislature may make laws in relation to agriculture in the province" and that "the Parliament of Canada may from time to time make laws in relation to agriculture in all or any of the provinces; and any law of the legislature of a province relative to agriculture, shall have effect in and for the province as long and as far as it is not repugnant to any Act of the Parliament of Canada". As a result of this provision, there exists at the present time a Department of Agriculture, with a Minister of Agriculture at its head, in the Federal Government and in each of the provinces except Newfoundland where agricultural affairs are dealt with by the Agricultural Division of the Department of Natural Resources. The Federal Department was established in 1868.

At present there are four main fields of activity: (1) general policy, including security and price stability; (2) research and experimentation; (3) maintenance of standards and protection of products; and (4) reclamation and development. The first three fields are dealt with in the following subsections, while reclamation and development is covered in Section 3, pp. 393-405.

* Except as otherwise indicated, this material was prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture.

Policies and projects conducted under these headings are co-ordinated within the Department and with similar work done by other departments and institutions, both federal and provincial. The results of work in these various fields and information on the policies of the Department in general are given to farmers and to the public through bulletins, the press, radio and the screen.

Generally, Canadian farmers entered 1952 in a strong financial position and at no time has farm investment been on a sounder foundation. Many long-term commitments have been liquidated, or have been considerably reduced, and a large quantity of farm machinery and equipment has been acquired, mostly for cash or on large down-payments. Farmers have never been so well represented as they are to-day through national and provincial organizations and co-operatives, nor have they been so well protected by measures for security in marketing as they are by legislation passed by Parliament during the past decade.

Subsection 1.—General Policy and Price Support

The most important of the special Acts passed in recent years to assist the farmer are described below.

Agricultural Prices Support Act, 1944.—Under this Act, the Federal Government, acting through a Board, may stabilize the price of any agricultural product (except wheat, which is handled separately) by outright purchase or by underwriting the market through guarantees or deficiency payments. The net cost of operations under the Act, from its inception to the end of 1951, has been approximately \$10,000,000, although at times the Board has had title to products valued at more than \$35,000,000.

Agricultural Products Board Act, 1951.—This Act authorizes the establishment of a Board to buy, sell, export and import agricultural products when directed by the Governor in Council. When so designated by the Agricultural Prices Support Board, the Board may act as agent for the purchase and disposal of agricultural products under provisions of the Agricultural Prices Support Act.

Agricultural Products Co-operative Marketing Act, 1939.—This Act aids farmers in pooling returns from the sale of their products by guaranteeing initial payments and thus assisting in orderly marketing. The legislation has been used extensively by co-operatives, and agreements throughout the years have covered onions, potatoes, corn, many seed crops, and ranch-bred fox and mink pelts.

Agricultural Products Marketing Act, 1949.—A number of provincial governments have passed legislation providing for the establishment of a board to regulate or control the marketing of agricultural products produced and marketed within the province concerned. The Agricultural Products Marketing Act permits such provincial marketing legislation to be applied in the same way to the marketing of agricultural products outside that province and in export trade.

Prairie Farm Assistance Act, 1939.—The Federal Government under this legislation makes cash payments each year to farmers in areas within the Prairie Provinces that have had low crop yields because of drought or other causes. The award to a farmer is based upon the acreage of the farm and the average yield of wheat in the township in which the farm is located. The maximum amount payable on any one farm is \$500. Contributory payments are made by the farmers in the form of a levy of 1 p.c. on the value of all grains marketed. Additional amounts required are provided from the Consolidated Revenue Fund.

Potato Warehouses.—A policy was inaugurated in 1947 whereby the Federal Government provides cash assistance in respect to potato warehouses constructed by co-operative associations. The assistance is conditional upon the association providing an agreed amount, the Federal Government and the provincial government concerned sharing the remainder. All warehouses must have the approval of a federal-provincial committee set up for the purpose in each province in which warehouses are to be built under this policy.

The Cheese and Cheese Factory Improvement Act, 1939.—The purpose of this Act is to encourage the improvement of cheese factories and the quality of cheese production. A quality premium of one cent per pound is paid on cheddar cheese scoring 93 points and two cents per pound on cheese scoring 94 points or over. Under this Act the Federal Government may grant up to 50 p.c. of the amount expended for new material, new equipment and labour utilized in the construction, reconstruction and equipping of cheese factories eligible for a subsidy. This subsidy applies in the case of amalgamation of two or more existing cheese factories provided that the replaced cheese factories cease to operate as such prior to the payment of the grant. The Act also provides for paying 50 p.c. of the cost expended in efficiently insulating and enlarging cheese-curing rooms, either with or without mechanical refrigeration. Also, in order to standardize the size of cheese manufactured in the various factories, the Act provides for paying 50 p.c. of the cost of replacing cheese hoops where factories are using hoops of a diameter other than 15 inches. The cost of adjusting or replacing other equipment occasioned by the changeover is also included in the subsidy.

Cold Storage Act.—This Act provides financial assistance in the construction of public cold-storage warehouses in localities where it is considered that such warehouses are in the interests of the public.

Farm Credit.—The Federal Government has made provision for the extension of credit to farmers under the Canadian Farm Loan Act and under the Farm Improvement Loans Act. The Prairie Grain Producers' Interim Financing Act, 1951, was emergency legislation intended primarily to relieve any hardship caused by the extremely unfavourable harvesting conditions of that autumn (*see* p. 381).

*The Canadian Farm Loan Act, 1929.**—Long-term farm mortgage credit is made available to Canadian farmers under the provisions of this Act, which is administered by the Canadian Farm Loan Board. The Board makes loans for the purchase of live stock, farm equipment and farm land, for improvements, for refinancing debts and for operating expenses. The Board also provides short- and intermediate-term credit to its long-term mortgage borrowers by means of five-year second mortgages with collateral chattel security.

From the commencement of operations in 1929 to Mar. 31, 1951, the Board has lent \$74,960,000. During the first ten years the annual average was \$3,860,000, but borrowing declined during the war years, reaching a low of \$1,215,450 in 1943. Since then it has increased to a high of \$5,189,400 for the year ended Mar. 31, 1950, but the amount approved in the year ended Mar. 31, 1951, was \$4,722,000. The trend in recent years has been toward decreased borrowing to pay debts and increased borrowing to purchase land and equipment.

* Revised by W. A. Reeve, Secretary, Canadian Farm Loan Board.

1.—Loans Approved and Disbursed under the Canadian Farm Loan Act, Years Ended Mar. 31, 1942-51

NOTE.—Figures for 1930 are given at p. 186 of the 1940 Year Book and those for 1931-41 at p. 189 of the 1942 edition.

Year ended Mar. 31—	Applications Received		Loans Approved					Loans Paid Out		
	No.	Amount	First Mortgage		Second Mortgage		Total Amount	First Mortgage	Second Mortgage	Total
			No.	Amount	No.	Amount				
	\$	\$		\$		\$	\$	\$	\$	\$
1942.....	1,812	3,820,156	1,024	1,891,100	155	75,650	1,966,750	2,053,712	79,802	2,133,514
1943.....	1,055	2,277,830	601	1,156,150	135	59,300	1,215,450	1,260,033	60,223	1,320,256
1944.....	1,037	2,419,001	603	1,315,950	162	90,850	1,406,800	1,251,949	84,154	1,336,103
1945.....	1,306	3,293,559	728	1,623,000	176	100,700	1,723,700	1,561,174	100,235	1,661,409
1946.....	1,846	4,758,916	918	2,161,050	258	163,050	2,324,100	1,977,902	143,305	2,121,207
1947.....	2,015	5,579,142	1,312	3,165,250	404	253,900	3,419,150	3,030,915	242,896	3,273,811
1948.....	2,380	6,672,998	1,301	3,145,150	517	315,400	3,460,550	2,911,167	274,073	3,185,240
1949.....	3,357	9,698,276	1,821	4,450,100	756	469,200	4,919,300	4,169,070	425,966	4,595,036
1950.....	4,639	13,293,132	1,949	4,715,500	801	473,900	5,189,400	4,480,779	462,150	4,942,929
1951.....	3,971	11,485,673	1,796	4,312,450	680	409,550	4,722,000	4,288,866	404,213	4,693,079

2.—Loans Approved under the Canadian Farm Loan Act and Appraised Values of Security, by Provinces, Year Ended Mar. 31, 1951

NOTE.—Figures for previous years will be found in the corresponding tables of former editions of the Year Book.

Province	Loans Approved					Appraised Values of Security at Time of Loan		
	First Mortgage		Second Mortgage		Total Amount	Land	Buildings	Total
	No.	Amount	No.	Amount				
		\$		\$				
Newfoundland.....	—	—	—	—	—	\$	\$	\$
Prince Edward Island.....	86	175,650	20	11,500	187,150	255,365	174,954	430,319
Nova Scotia.....	47	107,350	3	1,150	108,500	166,517	107,695	274,212
New Brunswick.....	132	256,150	17	9,850	266,000	386,248	272,838	659,086
Quebec.....	308	801,550	144	80,850	882,400	1,122,535	805,439	1,927,974
Ontario.....	297	843,500	79	49,150	892,650	1,166,374	814,439	1,980,813
Manitoba.....	146	374,150	70	41,900	416,050	779,311	319,115	1,098,426
Saskatchewan.....	412	985,850	260	158,150	1,144,000	2,158,020	628,770	2,786,790
Alberta.....	244	478,700	66	39,550	518,250	1,053,328	318,778	1,372,106
British Columbia.....	124	289,550	21	17,450	307,000	470,938	287,518	758,456
Totals.....	1,796	4,312,450	680	409,550	4,722,000	7,558,636	3,729,546	11,288,182

The main forms of financial assistance provided at the present time by the Federal Government to farmers for housing purposes include: the Canadian Farm Loan Act outlined above, the National Housing Act and the Farm Improvement Loans Act dealt with under Construction, and the Veterans' Land Act, under Veterans Affairs (*see* Index).

*The Farm Improvement Loans Act, 1944.**—The Farm Improvement Loans Act is designed to provide intermediate-term credit and a type of short-term credit to farmers to enable them to equip, improve and develop their farms. There is scarcely anything a farmer wants in the way of mechanical aids for his farm operation or his home for which a loan may not be made. Assistance may also be obtained

* Prepared by D. M. McRae, Supervisor, Farm Improvement Loans Act, Department of Finance.

for the purchase of live stock, principally foundation or breeding stock; for installation or repair of farm electric systems; for repair, alteration or construction of farm buildings, including the home; and for fencing, drainage and other development projects. The Act is intended to assist the farmer who previously has not been able to obtain adequate credit for such purposes. Moreover, credit is provided on security and terms that are convenient and suited to the individual borrower.

The chartered banks are the lending agency under the Act. This legislation, originally operating for three years, was extended in February 1948 for a further three-year period. During these six years the Government guaranteed each bank against loss in an amount equal to 10 p.c. of the total of all loans made by the bank. The amount of the guarantee was limited to \$250,000,000. In February 1951, the Act was again extended for three years and the guarantee was set at \$200,000,000. Up to Dec. 31, 1951, 54 claims amounting to \$26,230 were paid under the guarantee.

Loans may be obtained for periods of up to seven years with maximum interest at 5 p.c. The maximum amount that may be on loan to a borrower at any one time is \$3,000. Also, the borrower must himself provide 20 p.c. to 33 p.c. of the cost of his project. The Act is administered by the Department of Finance.

Loans made from the inception of the Act to Dec. 31, 1951, were:—

Year	Loans		Amount
	No.		\$
1945 (10 months).....	4,311		3,381,742
1946.....	13,030		9,880,566
1947.....	22,046		18,160,821
1948.....	30,431		29,331,131
1949.....	44,775		45,879,080
1950.....	58,969		63,421,363
1951.....	75,063		85,326,227
TOTALS.....	248,625		255,380,930

By Dec. 31, 1951, \$153,714,985, or over 60 p.c. of the total of all loans made, had been repaid. Of the loans made during the first three years of operation, all but 1.3 p.c. had been repaid; of those made during the second three years, all but 27 p.c. had been repaid.

3.—Loans made under the Farm Improvement Loans Act, classified by Purposes, 1945-51

Purpose	1950		1951		Totals Since Inception in 1945	
	Loans	Amount	Loans	Amount	Loans	Amount
	No.	\$	No.	\$	No.	\$
Purchase of agricultural implements....	52,733	58,391,636	67,605	78,302,385	216,375	230,155,069
Construction, repair or alteration of, or additions to any structure on a farm...	2,128	2,402,309	2,813	3,378,564	12,538	13,428,712
Purchase of live stock.....	1,805	1,483,474	2,918	2,741,289	8,323	6,556,789
Improvement or development project...	1,809	902,885	1,253	694,460	9,320	4,213,562
Purchase or installation of equipment or electric system.....	422	195,669	406	167,668	1,676	795,778
Fencing or drainage.....	51	35,897	61	39,374	342	211,149
Alteration or improvement of electric system.....	21	9,493	7	2,487	51	19,871
TOTALS.....	58,969	63,421,363	75,063	85,326,227	248,625	255,380,930

4.—Loans made under the Farm Improvement Loans Act, classified by Provinces, 1945-51

Province	1950		1951		Totals Since Inception in 1945	
	Loans	Amount	Loans	Amount	Loans	Amount
	No.	\$	No.	\$	No.	\$
Newfoundland.....	2	967	3	2,412	5	3,379
Prince Edward Island.....	706	605,518	1,271	1,144,295	2,306	2,023,570
Nova Scotia.....	340	274,940	695	619,720	1,457	1,224,781
New Brunswick.....	348	358,756	655	696,751	1,380	1,430,728
Quebec.....	3,003	3,097,204	5,405	6,125,622	10,984	11,517,025
Ontario.....	7,914	8,043,839	11,323	12,178,465	29,909	30,481,580
Manitoba.....	7,712	8,263,982	10,120	11,370,755	35,664	35,862,757
Saskatchewan.....	20,090	22,557,445	23,272	27,876,923	82,583	87,876,144
Alberta.....	17,161	18,508,717	20,309	23,240,816	77,462	78,219,834
British Columbia.....	1,693	1,709,995	2,010	2,070,468	6,875	6,741,132
Totals.....	58,969	63,421,363	75,063	85,326,227	248,625	255,380,930

Prairie Grain Producers' Interim Financing Act, 1951.—This Act, which came into force Jan. 15, 1952, provides short-term credit to grain producers in the Prairie Provinces who, because of congested delivery points or inability to complete harvesting of their grain, are in need of credit until their grain can be delivered. Individual advances can be made to a maximum of \$1,000.

Subsection 2.—Agricultural Research and Experimentation

The Department of Agriculture conducts, on a broad scale, scientific research and experimentation on the control of pests and diseases, the nutritional requirements of plants and animals, the breeding and testing of new varieties, the microbiology of soils and foods, investigations of crop production and cultural methods, and many other matters. This work is carried on mainly by the Science Service and the Experimental Farms Service. In addition to providing information on current production problems, the work is of paramount importance to the long-time well-being of agriculture.

Conservation of the soil is of basic importance to agriculture. Research in that field takes the form of soil surveys and study of methods for protecting and conserving soil resources and is carried on in collaboration with the provincial governments. Studies include the chemistry of the soil, cover crops, value of manure and fertilizers, cultural methods, use of tillage machinery and development of large land-reclamation projects.

The Department has for many years conducted investigations into the control of insects and diseases of forest trees. The limited silvicultural work carried on has been done with the aim of maintaining a supply of trees suitable for planting on the prairies as shelter belts against the wind and to prevent soil and snow drifting. Basically, this is also a soil-conservation measure.

As might be expected, much of the research and experimental work carried on is concerned with crop plants for, after the soil itself, they are of chief importance. This work includes the breeding and testing of suitable varieties of crops to be grown under the varying climatic conditions throughout Canada. Their culture, their nutritional value and, in the case of food crops and their suitability for human consumption—even their appeal, or lack of appeal, to a somewhat discerning housewife—are continuously under study.

Work on live stock includes mainly the feeding, care and handling of stock, its protection from insects and diseases, and the production of suitable market and breeding types. A limited amount of work has been done on the production of new strains of animals.

Research and study of processed products such as milk, butter, cheese and meat, and of fruits and vegetables is a most active item in the scientific work of the Department. Storage of agricultural products creates many problems that call for constant study.

Chemical and biological research and experimentation is mainly of an applied nature. That is, the Department does not specialize in so-called fundamental research involving the discovery of basic scientific phenomena and laws, but concentrates mainly on the adoption of known processes and the application of such processes to specific aims. At the same time, some discoveries bordering on fundamental research are occasionally made, and it is also found necessary to extend to some degree into the fundamental field where certain information is lacking in applied science.

Agricultural research, particularly in plant science, must be decentralized to a great extent for most problems must be studied where they occur. Apart from the value to farmers of having a local source of information, the experimental farms and science laboratories are widely distributed because the work can be done in no other way. In addition to the headquarters of the Experimental Farms Service at Ottawa, work is carried on at 28 branch experimental farms and 20 substations. Experimental work of local application is done at 162 illustration stations, 54 district substations and 11 fox and mink illustration stations. The work of the Science Service, centralized at Ottawa, is also augmented by about 100 laboratories throughout the country, including the recently opened laboratories of Insect Pathology at Sault Ste. Marie, Ont., and the Science Service Laboratory at London, Ont.

In the field of economic research, studies in farm management, land utilization, marketing and farm-family living are undertaken in all parts of the country. The scope of the scientific and experimental work of the Department is revealed when it is realized that there is no plant or animal in Canada that is not susceptible to damage by disease caused by bacteria, fungi or viruses, or subject to attacks by insects or, in the case of animals, by internal parasites. Also, that the work of the agricultural scientist is never done may be illustrated by the appearance of a new stem rust of wheat (Race 15B) which attacks varieties previously found to be rust-resistant. The only answer to this menace is the development of a new resistant strain necessitating an intensive breeding program. The answers to many such problems are found only after years of continuous study and investigation.

Subsection 3.—Protection and Grading

Unlike manufactured articles, even close scrutiny of most agricultural products is no clue to their purity as food, or their value to the farmer for further production. Obviously, products that are eventually used as food must be pure and healthful and must come up to standards of quality established for them. On the other hand, if agriculture is to be conducted on a sound basis, the supplies farmers buy—seeds, feeds, fertilizers and pesticides—must also carry some guarantee that they will be as represented. Much of the research and experimental work would go for naught if legislation were not provided to see that the end-product of such work was satis-

factory. In addition, Canada's live stock, crops and trees must be protected from diseases that might be introduced with importations from other countries, or that might originate in Canada.

These protective and grading services are a most important part of the work of the Department of Agriculture. They come under two sections, the Production Service and the Marketing Service, and the necessary authority is gained from about 20 Acts or their regulations. Generally, the protective features and the grading to standards or approval of analyses of farm supplies come under the Production Service. The grading of most food products is the responsibility of the Marketing Service.

Health of Animals.—The protection of the health of Canada's live stock is a most important service. To guard against the introduction of contagious diseases from foreign lands stringent regulations are enforced by the Health of Animals Division covering the importation of live stock, live-stock products and even packing material and litter. Provision is also made for the control or eradication of animal diseases developing within Canada. The Division is responsible for the inspection of animals slaughtered for food, and post-mortem examination is made on all carcasses in the course of slaughter and dressing before the meat is approved for human consumption. Sanitary conditions in packing plants and slaughter houses come under review and all canned meats must meet high standards of processing to qualify as food.

Protection of Supplies.—The Plant Products Division, in co-operation with the provinces and other agencies, is primarily concerned with the administration of Acts respecting feeding stuffs, fertilizers, pesticides, hay and straw, fibre flax and binder twine, and the production of seed. The inspection services of the Division have three main functions: (1) to enforce the Acts that regulate the sale of the agricultural supplies; (2) to provide, as required, such services as seed-crop inspection and the sealing of seed produced from inspected and other approved crops; (3) to co-operate with provincial governments and other agencies in promoting and improving supplies of seeds, feeds, fertilizers and pesticides.

Visual inspection is of little value for most of these products and laboratory testing is necessary; the laboratory services of the Division maintain branch offices across Canada. In the case of seeds it is a complex matter, for they must be tested for germination, variety, purity and freedom from weeds and other kinds of seeds before they are graded. All feeding stuffs, fertilizers and pesticides are subject to registration, and this is refused if products would be dangerous in use, if the ingredients or analyses are unsatisfactory, or if the claims made regarding their value are incorrect or misleading.

Plant Protection.—The Division of Plant Protection functions with regard to plants and plant products much as the Health of Animals Division does with animals and administers the Destructive Insect and Pest Act. Imported nursery stock and plant material are all subject to inspection as protection against the introduction of insects and diseases. Extensive inspection is maintained within Canada to identify, localize and exterminate dangerous enemies of crops and trees. Provision is also made for the inspection of potato crops to be used for seed, both for the domestic and the export market, and for the issuance of health certificates required for a wide range of plant products.

Standards and Inspection.—For 50 years or more, the Department has been steadily establishing and improving standards of quality for agricultural products. This work originated in an effort to improve the quality of export commodities and has gradually extended to include many products that move in inter-provincial trade. The provinces have in most cases adopted these standards for enforcement within their respective areas on products marketed intraprovincially.

Grade standards are established and enforced for dairy products, meats, eggs and poultry, fruits and vegetables (canned and processed, and seed). Grade standards are widely recognized outside Canada and many Canadian foods and agricultural products command premium prices because of the strict quality standards maintained.

Dairy Products.—The grading and inspection services of the Dairy Products Division is somewhat typical of other sections of the Marketing Service engaged in such work. Cheddar cheese, creamery butter and dry skimmed milk must be graded before being exported; in practice this means practically all the cheddar cheese, 60 p.c. of the creamery butter and 82 p.c. of the dry skimmed milk. In addition, creamery print butter is branded as to grade in nine provinces. Dairy products are required to meet standards of composition, be of correct weight or volume and be described accurately in accordance with the provisions of the Dairy Industry Act and regulations thereunder. In the case of condensed, evaporated and dried milk products, technical assistance is given on manufacturing and sanitation problems.

Meats.—In addition to the approval of carcasses for human consumption, inspection and grading of meats is of importance. All hogs marketed at stockyards and plants are rail graded, that is, the farmer is paid on the dressed weight and quality of the carcass. Export bacon is inspected as well as other export meat and meat products. The better grades of beef are marked according to standards of Choice and Good beef, making them eligible for marketing as Red and Blue brands, respectively. Lamb carcasses are graded on an optional basis, and wool is inspected and graded in some 28 registered wool warehouses.

Eggs and Poultry.—Registered egg-grading stations are the basic units in the grading and packing of eggs; registered poultry-processing and eviscerating stations are the basic units in the processing, eviscerating, grading and packing of poultry; and registered egg-breaking stations are the basic units in the processing, grading and packing of frozen egg products. These stations have been brought to a high standard of efficiency with regard to sanitation, equipment, temperature control, grading and packaging.

Inspection of eggs, poultry and frozen egg products is compulsory on all sizable quantities intended for export. Inspection is compulsory for interprovincial shipments of poultry of 10,000 lb. or over. These products are also check-inspected periodically for grade when offered for sale at wholesale and retail. The sale of eggs by grade, at retail, is compulsory throughout Canada, and the sale of poultry by grade, at retail, is compulsory in many of the larger consuming centres.

Canned boneless poultry for interprovincial and export shipment must be packed according to grade and prepared in registered canneries. Registered poultry canneries also operate on a high standard of efficiency with respect to sanitation, temperature control, cooking procedure, packaging, etc.

Fruits and Vegetables.—A commercial inspection service covering fresh fruits and vegetables is provided and dealers and brokers handling these commodities in interprovincial, export and import trade are licensed and are subject to established regulations.

The fruit and vegetable canning and processing industry has made great strides in the past quarter-century. In 1950, 558 plants were licensed to operate, and produced processed fruits and vegetables valued at \$161,000,000. The inspection of these plants, the testing of the products and the grading is done by the Canning Section of the Fruit and Vegetable Division.

Maple Products and Honey.—Regulations are established for the inspection, analysis and grading of these products. Maple products manufacturers and sugar-bush owners, operating interprovincially or for export, are licensed. To prevent the possibility of adulteration of maple syrup and sugar, inspection is made of manufacturing plants, stores and restaurants. Interprovincial and export shippers of honey are registered.

Subsection 4.—Canada's Relationship with FAO

The Food and Agriculture Organization of the United Nations (FAO) was conceived at a special United Nations Conference at Hot Springs, Virginia, in May-June 1943, and brought into being at Quebec in October 1945. Its objectives include the raising of levels of nutrition and standards of living of the peoples of all countries, improvement in the efficiency of production and distribution of farm, forest and fisheries products, and the betterment of the conditions of rural populations. Membership in the Organization expanded from 42 member nations in 1945 to 68 at the end of 1951.

FAO is governed by a Conference in which each member nation has one vote. The Conference meets every second year and between sessions a Council acts for the Conference. The Council has 18 members, elected for a period of two years. The work is directed by a Director-General who, with the Chairman of the Council, is elected by the Conference for a two-year term of office. Under the Director-General are the General Secretariat, Special Assistants and the Area Liaison Service which includes the regional offices for North America, Latin America, Asia and the Far East, and the Near East and European areas. The Organization is divided into five technical Divisions: agriculture, economics, fisheries, forestry and nutrition.

FAO carries out four major types of activity. (1) It serves as a world extension or advisory service mobilizing modern scientific knowledge for increased production, improved handling and processing, and better distribution of food and other farm, forest and fisheries products. Much of the work is concerned with the economic development of underdeveloped areas. (2) It serves as a forum for bringing governments together for organizing international action. (3) It provides all governments, to the limits of its facilities, with facts and figures relating to food, agriculture, forestry, fisheries and nutrition. (4) It endeavours to appraise the outlook for production and consumption and the likely developments of international trade in food and agricultural commodities.

In the field of economic development, experts, scientists and investigating missions are supplied at the request of member countries to work in the country concerned on problems that are hindering its development. Through this program

of technical assistance, FAO, by December 1951, had signed 144 basic agreements with 48 countries or territories; 226 experts were either at work in these countries or had returned from their short-term assignments, and 45 additional specialists had been recruited or were on their way to take up their duties. While 107 requests remained to be filled, this was either because the work was seasonal or because requesting governments were not yet ready to initiate the studies. Of the total number of experts in the field on that date whose assignments were completed or whose appointments were pending, 143 were connected with agriculture, 42 with forestry, 11 with fisheries, 20 with nutrition, 21 were lecturers and instructors and 9 were administrative field personnel.

Associated with the provision of experts is a Fellowship Program covering some 30 countries providing for 260 fellowships to be granted to responsible government officials or senior professional men already familiar with the work being done or to be undertaken. Where technical assistance is supplied, the salary and travelling expenses to and from the country in which the expert is to work is paid by FAO; the contracting country meets other expenses. FAO itself is financed through contributions of member countries on a percentage basis.

Canada, as an important agricultural producer and exporter, has maintained a close interest in FAO and has played a prominent role in its development. A Canadian was a member of the original Executive Committee of the Organization and Canada has had continuous representation on the 18-member Council which replaced that Committee. Canadians are on most of the standing advisory technical committees and have taken part in many of the technical missions sent to underdeveloped countries. Canada has been able to provide considerable technical assistance to other nations through FAO and has benefited materially in return from the technical and statistical information supplied by FAO and through participation in discussions on national and international policies relating to agricultural production and distribution.

In its seventh year of operation in 1952, FAO has slowly but surely become firmly established. The preliminary surveys of requirements have been completed and the ideals and aims of the Hot Springs Conference are beginning to unfold into achievement on a practical scale. Food production is lagging still and it will take some time for many projects of FAO to demonstrate their full value. In many cases results will not be complete for generations in fertilization, irrigation and reclamation projects to bring soils and forests into productivity. The task of FAO is unceasing; it is in the vanguard of the march toward international betterment of mankind.

The permanent headquarters for the organization was established at Rome, Italy, in 1951. The Sixth Conference was held at that city, Nov. 19–Dec. 6, 1951.

Section 2.—Provincial Governments in Relation to Agriculture*

Subsection 1.—Agricultural Services

Newfoundland.—Since 1934, government agricultural services in Newfoundland have been operated by the Agricultural Division of the Department of Natural Resources. The Division maintains an extension service and encourages agricultural development by the payment of bonuses for the purchase of pure-bred sires and for the clearing of land, assistance with agricultural exhibitions, the payment of subsidies on live stock and the conducting of a soil-survey service. Each year

* Information supplied by the agricultural authorities of the various provinces.

several scholarships are awarded to young men enabling them to take a four-year degree course in agriculture. Government policy relating to land settlement affecting both civilians and war veterans, and the scheme of assistance to farmers in clearing land with government-owned tractors are administered by the Land Development Division of the Department of Natural Resources.

Prince Edward Island.—The Department of Agriculture is presided over by a Minister, assisted by a Deputy Minister, a Dairy Inspector, a Pathologist and Veterinarian, a Soil Assistant, five County Representatives and a Superintendent of Women's Institutes.

Nova Scotia.—Provincial agricultural policies in Nova Scotia are administered by the Department of Agriculture and Marketing, with the Minister's Office and those of the Deputy Minister, the Director of Marketing Services and the Superintendent of Agricultural Services located at Halifax. The Department is composed of several Branches, each headed by a Director. The Branches include: Agricultural Engineering Services; Animal and Poultry Services; Chemistry, Soils and Fertilizer Services; Dairy Services; Extension Services; Field Crops Services; Horticultural and Biological Services; Immigration and Land Settlement Services; and Marketing Services. With the exception of the agricultural representatives who are located in the 18 county offices, all technical officials are located at the Nova Scotia Agricultural College, Truro.

New Brunswick.—Provincial Government policy concerning agriculture in New Brunswick is directed by the Department of Agriculture. This Department has as its head the Minister of Agriculture who is assisted by a Deputy Minister and the Directors of the following services: extension, live stock, dairy, veterinary, poultry, horticulture, field husbandry, soils and crops, plant protection and promotion, agricultural engineering, home economics, Credit Union Co-operative Association, agricultural education, apiculture and agricultural societies.

Quebec.—The Department of Agriculture of Quebec comprises ten services: education, rural economics, extension, animal husbandry, horticulture, field husbandry, information and research, handicrafts and home economics, health of animals and rural engineering. Each service is divided into sections dealing with particular problems. The Department also includes many other special organizations such as the Farm Credit Bureau, the Research Council, the Rural Electrification Bureau and the Dairy Industry Commission.

The annual competition for the Agricultural Merit Order, organized in 1890, is held alternately in each of five regions. Honours and awards are conferred upon the operators of the best kept farms. More than 5,000 farmers have participated in the competition since its inception. County Farm Improvement Contests, started about 1930, have brought about most gratifying results on over 5,000 farms and remain very popular. Each contest lasts five years during which time farms are completely transformed and their production greatly increased.

Soil-improvement policies include large drainage projects carried out by the Department and smaller projects by groups of farmers with government help. Over 500,000 acres have been reclaimed or improved in the past few years. Financial and mechanical assistance is given for land clearing, stoning, levelling and terracing. Grants are also available for underground drainage, liming, etc.

Various forms of assistance are offered towards crop and live-stock improvement. An artificial insemination station operates at St. Hyacinthe for the benefit of breeders' clubs. Plant-breeding stations for cereal and forage crops are maintained at Macdonald College and for vegetables and small fruits at Ste. Foy, near Quebec City. Trained specialists, with main laboratories at Quebec and field laboratories in different districts or schools, are employed in the work of curbing the enemies of plant and animal health.

Agricultural co-operation is widespread in Quebec. There are 610 co-operatives with 69,829 members; 90 agricultural societies (27,000 members) look after local interests and organize county exhibitions. There are also in operation 900 Cercles de Fermières (Women's Institutes) with a membership of 50,000, 500 farmers' clubs with a membership of 25,982, and numerous junior farmer clubs.

Farm credit, established in 1936, accepts about 2,000 loans each year, two-thirds of which are used to facilitate the settlement of young farmers. Special grants are also available to farmers starting their sons on new farms.

Ontario.—The Ontario Department of Agriculture provides financial assistance and administrative services to agriculture through its Head Office, 12 branches, three Experimental Farms, and through research and extension work carried out at the four educational institutions under its administration. In addition to general administration, the Head Office administers the policies providing assistance to farmers and settlers in northern Ontario in connection with land breaking and clearing, and with improving farms and live stock. (1) The Live Stock Branch promotes live-stock improvement policies, licenses and examines stallions and gives support to pure-bred live-stock associations; (2) the Crops, Seeds and Weeds Branch assists in the development of good cultural practices and promotes the use of improved strains of seed, the improvement of pastures, and the eradication of weeds; (3) the Dairy Branch provides an inspection, instruction and supervision service to all dairy factories and promotes the production of clean milk on farms; (4) the Farm Economics Branch conducts cost studies on agricultural production in co-operation with agricultural organizations; (5) the Fruit Branch enforces fruit and vegetable regulations, provides information to growers, and administers the Co-operative Marketing Loans Act; (6) the Co-operation and Markets Branch administers the Farm Products Control Act, the Credit Unions Act, the Ontario Food Terminal Act and the Farm Products Containers Act; (7) the Milk Control Board, under the Milk Control Act, regulates and supervises the marketing of fluid milk; (8) the Agricultural and Horticultural Societies Branch gives assistance to agricultural and horticultural fairs and exhibitions, plowing matches and other competitions, and administers the Community Centres Act; (9) the Agricultural Representatives Branch carries on an educational and extension service through agricultural representatives located in all counties and districts and gives direction to club work carried on with farm youth; (10) the Women's Institute Branch and Home Economics Service gives leadership and direction to organized activities of rural women; (11) the Statistics and Publications Branch, in co-operation with the Dominion Bureau of Statistics, provides a crop-reporting service and gathers and disseminates data on crops, live stock and dairy products; (12) the Ontario Farm Labour Service assists farmers in securing help during the busy seasons, particularly at harvest time. The Horticultural Experiment Station at Vineland, the Western Ontario Experimental Farm and Agricultural School at Ridgeway, the Demonstration

Farm at New Liskeard, the Kemptville Agricultural School, the Ontario Agricultural College and the Ontario Veterinary College at Guelph, all under the administration of the Department, provide research and extension services to Ontario Agriculture.

Manitoba.—The Department of Agriculture of Manitoba serves through the following branches: agricultural extension; live stock; dairy; agricultural publications and statistics; weeds administration; co-operative services; and the provincial veterinary laboratory.

The Extension Service deals with agronomy, horticulture, poultry, agricultural engineering, beekeeping, junior live stock, boys' and girls' clubs and women's work, with specialists devoting their attention to these subjects. Meetings, field days and short courses are held throughout the Province. There are 30 agricultural representatives located throughout the Province, each representative serving from one to five municipalities.

The Live Stock Branch administers the Animal Husbandry Act, develops and administers policies which encourage the improvement and production of live stock, and works in close co-operation with the Veterinary Laboratory Service and the Dominion Health of Animals Division in the control of live-stock diseases.

The Dairy Branch administers the Dairy Act, supervises the grading of cream, inspects creameries and cheese factories, gives instruction in cheese- and butter-making, issues licences to makers of dairy products and to cream graders and conducts a dairy-cost study among milk producers. Extension activities include addressing meetings and preparing articles and leaflets on dairy farm problems.

The Agricultural Publications and Statistics Branch publishes and distributes, annually, approximately 100,000 bulletins, circulars, posters, leaflets, etc.

The Weeds Administration Branch directs the activities of 18 municipal weed-control units comprising 70 rural municipalities engaged in eradicating deep-rooted, persistent perennial weeds; supervises weed demonstrations; investigates weed problems; conducts weed surveys; and prepares weed literature, radio addresses, articles, pictures, mounted weed specimens, etc.

The Co-operative Services Branch takes care of the registration and supervision of co-operatives and credit unions and the administration of the Acts governing them. The Branch also gathers and compiles statistics on co-operative activity throughout the Province. The Director is Secretary of the Co-operative Promotions Board.

The Veterinary Laboratory operates a diagnostic laboratory for animal diseases, the services of which are available to veterinarians and live-stock owners.

Saskatchewan.—The Saskatchewan Department of Agriculture is organized into six Branches. (1) The Administration Branch conducts daily farm-information radio programs over seven private stations and, in co-operation with the Dominion Bureau of Statistics, gathers data on crop conditions, production, marketing and income. (2) The Agricultural Representative Service has a field staff of 37 Agricultural Representatives, four District Supervisors and specialists in farm mechanics and visual aids. Agricultural Representatives, working with municipal agricultural and conservation committees, study local problems and determine their needs; the Department pays one-half the costs of local development projects. Assistance is given to farm people through meetings, visits, the press and radio in respect to the use and conservation of soil and water resources, and the production of crops, live stock, poultry and bees. Agricultural Representatives are active in all federal, provincial

and university farm services under the Saskatchewan Co-operative Agricultural Extension Program. Co-operation is maintained with the Federal Department of Labour and the National Employment Service in directing large annual movements of farm labour in and out of the Province. (3) The Conservation and Development Branch is responsible for the engineering, farming and land development activities of the Department, including irrigation and drainage programs conducted in co-operation with the Federal Government and irrigation on departmental and privately owned projects. Reclamation of land by drainage, development of misused land and under-utilized land, and construction of provincial community pastures all come within its jurisdiction. The Branch administers the Farm Implement Act and provides engineering service for conservation and water-control projects. (4) The Lands Branch classifies all Crown land according to the use for which it is best suited; disposes of such land under long-term leases or by inclusion in land-utilization projects; collects rentals for land under disposition; clears and breaks plots made available for settlement; and operates community pastures. (5) The Plant Industry Branch organizes and administers programs for crop improvement and crop protection, and advises on seed and crop improvement, soil erosion, horticultural problems and weed control. The improvement of grassland is promoted through a forage crop program. The Seed Plant Division carries on custom cleaning of forage seeds and registered cereals. The Apiary Division advises on beekeeping and honey production, carries on continuous inspection for American foul brood and supervises grading. (6) The Animal Industry Branch includes four divisions. The Dairy Division administers dairy herd improvement programs and assists producers with management and production problems; inspects and licenses dairy manufacturing and frozen-food locker plants; and administers dairy, locker-plant and margarine legislation. The Livestock Division encourages the use of suitable animals for breeding purposes by the establishment of pure-bred sire areas and by assistance in the purchase and distribution of stallions, bulls, boars and rams. It registers brands, bonds and licenses live-stock dealers and agents and promotes programs on insect control, feeding and management. The Poultry Division maintains flock-testing and turkey-grading services; administers an approved hatchery policy, licenses and bonds produce dealers and poultry buyers, hatcheries and hatchery agents. It also assists with poultry shows and field days and generally promotes flock improvement. The Veterinary Division assists students in veterinary science under a scholarship plan, administers disease-testing and vaccination programs and co-operates with Federal Government officials and local veterinarians in disease prevention and control.

Alberta.—The Alberta Department of Agriculture is organized as follows. (1) The Field Crops Branch deals with all matters pertaining to the utilization of soil and production of crops. A Commissioner of Field Crops and four Supervisors administer programs and policies relating to crop improvement, soil conservation and weed control, crop protection and pest control, and horticulture. Agricultural Service Boards of municipalities assist in implementing field-crop policies of local concern. The Department is represented on each Board. (2) The Live Stock Branch aids in maintaining the quality of herds and flocks by assisting farmers in securing pure-bred herd sires and maintaining an artificial insemination laboratory. The work of the Branch includes the inspection of stallions, the supervision of live-stock feeder association, and the administration of legislation relating to stock inspection, brands, domestic animals and the sale of horned cattle. (3) The Dairy Branch administers the Dairymen's Act and the Frozen Food Locker Act. Grading and

purchasing of raw produce by all dairy plants are under regulation, as well as standards of construction, manufacture, processing, sanitation and temperature control for dairies and frozen-food lockers. A regular cow-testing service is available to dairy producers and the Branch laboratory provides facilities for chemical and bacteriological analyses needed for industrial directives. Yearly cost studies and dairy farm management services are operating in the principal milk-producing areas. (4) The Poultry Branch carries on programs for the improvement of poultry husbandry, supervises flock approval for the control of pullorum disease, maintains a practical poultry-breeding plant for the distribution of breeding stock and issues all hatchery, wholesale first receiver and trucker licences for the handling of poultry products. (5) The Veterinary Services Branch is responsible for the diagnosis of animal diseases for veterinarians and conducts considerable veterinary extension work. During 1951, approximately 8,500 specimens of live stock and poultry were examined. (6) The Apiculture Branch administers the Bee Diseases Act which requires the registration of all beekeepers and the maintenance of an inspection service. The Branch also carries on a considerable amount of general educational work. (7) The Agricultural Extension Service operates 37 offices and employs the services of 43 District Agriculturists and 13 District Home Economists. The District Agriculturists work with farmers, assisting them with their problems and with departmental policies designed to improve the standard of agricultural practices. The District Home Economists provide a similar service for farm women. Bulletins are prepared dealing with agricultural and home economics topics, together with weekly agricultural notes and a tri-weekly radio program. The Branch, in co-operation with the Federal Department of Labour, is concerned with recruitment and placement of farm labour and is responsible for the supervision of agricultural societies. (8) The Fur Farm Branch administers the licensing and exporting of live animals and pelts and assists fur farmers with problems pertaining to care and management, stock improvement and disease control. Considerable educational work is conducted in the form of meetings, field days, short courses and bulletins. Fur farm inspections are carried out periodically. (9) The Schools of Agriculture Branch administers the operation of three institutions located at Olds, Vermilion and Fairview, which offer practical two-year courses for young men who intend to farm and for young women who plan to become homemakers. During the summer the schools are used for short courses and gatherings of farm people. The Alberta Junior Farm and Home Clubs educate young people in practical phases of farming and homemaking and train them in the essentials of good citizenship. In 1951 there were 426 junior clubs with a membership of 6,575.

British Columbia.—The Department of Agriculture has four main divisions. (1) The Administrative Division is responsible for the general direction of agricultural policies, administration of legislation affecting agriculture, supervision of extension programs, collection of agricultural statistics, compilation of reports and publications, preparation of material for agricultural exhibitions, supervision of farmers' and women's institutes, as well as the carrying out of soil surveys in various sections of the Province. (2) The Animal Industry Division consists of general live-stock, veterinary, dairy and poultry branches and supervises the promotion and improvement of animal production, fur farms, brand inspection, inspection of beef grading, control of contagious diseases of animals, eradication of insect pests detrimental to live stock, and field extension connected with animal nutritional work. (3) The Plant Industry Division includes horticulture, field-crop, plant pathology, entomology and apiculture branches and supervises fruit, vegetable and

seed production and surveys dealing with orchards, small fruits, flowering bulbs and greenhouse areas; also the suppression of insect pests, plant disease inspection with control of noxious weeds and general promotion of crop production. In addition there are field officials in 12 of the principal fruit and vegetable producing areas who undertake extension work on behalf of field crop, fruit and vegetable producers. (4) The Agricultural Development and Extension Division includes field-extension work through the district agriculturist service, clearing agricultural lands for production, agricultural engineering, farm labour supply, and junior club projects. Extension Division officials of the Department are located in 32 agricultural centres throughout the Province.

Subsection 2.—Agricultural Colleges and Schools

All provinces with the exception of Newfoundland and New Brunswick provide facilities for training in agricultural science at university level. Such colleges are administered by either the Department of Agriculture or the Department of Education of the respective province. At the secondary-school level, practical courses in agriculture are included in the high-school curricula of all provinces except Newfoundland. The Province of Quebec provides for such instruction in special schools.

5.—Agricultural Colleges and Schools, by Provinces, 1951

Province	Number and Type	Course
Newfoundland.....	—	—
Prince Edward Island.....	1 Faculty of Agriculture, Prince of Wales College. 1 vocational school.....	2-year course preparatory to third year of degree course at MacDonald College, Que. 1-year and short courses in vocational agriculture.
Nova Scotia.....	1 agricultural college.....	2-year degree course and short-term or correspondence courses in vocational agriculture.
New Brunswick.....	1 vocational school } 3 agricultural schools }	Courses in agriculture and home economics.
Quebec.....	3 agricultural colleges..... 1 provincial veterinary college..... 17 secondary agricultural schools.... 6 agricultural orphanages..... 4 special schools.....	4-year degree and 2-year diploma courses. 4-year degree course. 2 winter terms for farm children. Practical training for prospective farmers. Dairy, veterinary, experimental and fur-farm schools. Short courses and special or refresher courses are offered to farmers by most of these schools.
Ontario.....	1 agricultural college..... 1 college of veterinary science..... 2 agricultural schools.....	4-year degree course in agriculture or household science, 2-year diploma course in agriculture, 1-year course in household science, and short courses in agriculture and household science. 5-year degree course. 2-year diploma course in agriculture. One school gives also a 2-year course in household science.

5.—Agricultural Colleges and Schools, by Provinces, 1951—concluded

Province	Number and Type	Course
Manitoba.....	Faculty of Agriculture, University of Manitoba. 1 agricultural and home-making school.	Degree courses in agriculture and household science; 2-year diploma course in agriculture and 1-year course in household science. 1-year diploma courses in agriculture and household science.
Saskatchewan.....	University of Saskatchewan— College of Agriculture..... Farm School of Agriculture..... College of Household Science.....	Degree course in agriculture. Certificate course in agriculture. Degree course in household science.
Alberta.....	Faculty of Agriculture, University of Alberta. 3 agricultural schools.....	Degree courses in agriculture and household science. 2-year vocational courses in farming and home-making, and various short courses.
British Columbia.....	Faculty of Agriculture, University of British Columbia.	Degree course in agriculture.

Section 3.—Agricultural Irrigation and Land Conservation

Subsection 1.—Federal Projects*

PRAIRIE FARM REHABILITATION ACT

The Prairie Farm Rehabilitation Act is a rehabilitation program conceived by Parliament in 1935 to meet the problems of drought and soil drifting adversely affecting agriculture on the Canadian prairies.

Existing agencies of the Government of Canada were assisted, with P.F.R.A. funds, to expand their activities in providing leadership in the immediate drought problems. In particular, cultural investigations were carried out by the Experimental Farms Service to ensure the most economic use of the limited supply of soil moisture for crop production and the prevention of soil drifting farm lands that were a menace to surrounding good land. A program of water conservation to meet immediate needs was also initiated in 1935. Other services, such as the Economics Division, were assisted where special knowledge was required for rehabilitation measures.

The major activities of the P.F.R.A. Administration, with headquarters at Regina, Sask., include the construction, for the Government of Canada, of all projects concerned with water conservation and land utilization in the Prairie Provinces. The four principal phases of investigational study in the field of engineering include surveys (exploration), soil mechanics, drainage and design. These studies are undertaken by P.F.R.A. to gather the fundamental groundwork of technical and other basic information that is required before construction of any project is undertaken. Considerable work in each of these fields of study was undertaken during the year ended Mar. 31, 1952, together with co-operative studies using the services of existing government departments.

Water Conservation

Small and Community Projects.—P.F.R.A. provides engineering and financial assistance to farmers in the construction of water conservation works within drought areas of the three Prairie Provinces as a rehabilitation measure. The

* Prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, by G. J. Matte, Associate Director of Rehabilitation.

amount of financial assistance awarded is largely dependent upon the type and size of the project contemplated. At all times the P.F.R.A. policy, with respect to assistance provided, is to assist farmers to rehabilitate themselves. Authority to proceed with construction is first secured through the respective provincial water rights departments. Water conservation projects in this category are classified either as "individual farm projects" or as "community projects" undertaken by a group of farmers.

Individual Farm Projects.—During 17 years of operation P.F.R.A. has provided assistance to farmers to construct 46,759 individual farm projects in the form of dugouts and small dams, many of which are suitable for irrigation. The objective is to provide adequate water-storage facilities where water shortages exist, and to assure dependable water supplies through irrigation for domestic requirements, for stock-watering and for the production of live-stock feed.

Of the 46,759 projects completed by Mar. 31, 1952, 38,416 have been designed as dugouts, 5,928 as stock-watering dams and the remaining 2,415 projects as small irrigation schemes. The construction of these projects has extended the benefits of water to all parts of the dry area. By so doing, a much larger number of farmers have been rehabilitated than would have been possible through the construction of large schemes on well-defined watersheds, and without the movement of settlers from their present holdings. The maintenance of valuable live-stock herds has been secured by assuring dependable water supplies on farm stock-watering projects and through the development of 90,000 acres of irrigated land on small irrigation schemes.

Community Projects.—The development of community projects is necessarily confined within the narrow reaches of well-defined watersheds where sufficient water resources are available. Where groups of farmers organize a water users' association or the rural municipality provides leadership in an irrigation or water-storage project, the P.F.R.A. co-operates with the local body. The usual procedure is for the Government of Canada to assume the capital cost of storage and connecting works and the provincial body to assume the responsibility for the distribution of water to the land or along the watershed. The local body also undertakes maintenance and operation.

To Mar. 31, 1952, P.F.R.A. has provided the necessary assistance to construct 244 community projects. The majority of these are located on six watersheds originating in the three Prairie Provinces. Their purpose is to conserve surplus spring runoff water that flows in streams early in the season to supplement short supply later in the year. By maintaining stream flows, farmers are assured of dependable water supplies for live stock and for irrigation use. In addition, community projects provide homes for farmers moved from submarginal areas to where they can be assured a livelihood.

P.F.R.A.'s responsibility for the development of large community irrigation schemes terminates with the construction of primary reservoirs and connecting canals. In special cases where the need for early returns to farmers proved imminent, P.F.R.A. has assisted further in the development of the irrigable land and has maintained a constant surveillance of the project's operations and progress. At times, agreement has been reached between P.F.R.A. and the provincial government concerned whereby the P.F.R.A. provides engineering and financial assistance to

construct primary works and the province agrees to assist with the development of the irrigable area. Such an agreement is in effect in connection with sections of the Swift Current Irrigation Project being developed in Saskatchewan.

Major Irrigation Projects.—During recent years P.F.R.A. has administered special votes by Parliament for the construction of water conservation and development projects that involve large expenditures of money. These undertakings have extended P.F.R.A. administration beyond the boundaries of the P.F.R.A. area in the three Prairie Provinces into British Columbia.

St. Mary Irrigation Project.—The St. Mary Irrigation project has been undertaken by agreement between the Government of Canada and the Province of Alberta. The Government of Canada has agreed to construct the main supply reservoirs and connecting works. The Province of Alberta has undertaken the responsibility for construction of the auxiliary reservoirs and distributary system from the main works to the land.

The St. Mary River System is by far the most important irrigation project undertaken in Canada and when completed will irrigate an area of approximately 510,000 acres. Construction of the St. Mary Dam, key structure on the whole project, was completed in 1951 and was marked by an official opening July 16, 1951. Built under Canada's share of the Federal-Provincial agreement, the dam stands 195 feet high and 2,536 feet wide, and creates a reservoir capable of storing 320,000 acre-feet of water. The dam, which was a major engineering accomplishment, took five years to construct.

Approximately 150 miles of main canal have been built by the Government of Canada. Ten thousand acres of land have so far been developed as the Province's share under the agreement, together with over 100 miles of the distribution canal system. Further lands will be developed in 1953 and 1954.

South Saskatchewan River Development.—This development in central Saskatchewan is a proposed multiple-purpose project to be used for developing power and irrigation, the irrigable area lying between the town of Elbow and the city of Saskatoon. The key structure on the project will be a dam on the South Saskatchewan River located at a point midway between the towns of Outlook and Elbow.

The plan is to stabilize agriculture in the south-central area of the Province where prolonged droughts have created serious economic problems for over 50,000 farmers. Full use will be made of the river's control, power, urban water supply and recreational benefits. Considerable investigational work has been undertaken on this project, a full report of which was presented to the Government of Canada in 1951.

Bow River Irrigation Project.—The Bow River project was purchased by the Government of Canada in 1950 from the Canada Land and Irrigation Company, a private British interest. Development of this project will ensure water to an existing 57,000 acres of irrigated land and will bring an additional 180,000 acres "under the ditch". The project is being undertaken by the Federal Government in order to rehabilitate hundreds of farmers now residing within drought areas of the prairies. In addition, it is expected that this scheme will serve as a stabilizing influence on agriculture in southern Alberta.

Engineering surveys, drainage studies and soil mechanics investigations, started in 1950, were continued.

Construction activities have been mainly the repair and enlarging of old and worn out structures to meet new and increased demands. Twelve thousand acres of new land in the Hays district of the Bow River irrigation project were prepared for settlement in 1951. A complete irrigation distribution system was installed in the area.

Red Deer Irrigation Project.—The proposed Red Deer River development concerns the irrigation of an estimated 400,000 acres of land located in the east-central part of Alberta. The project will consist of a dam on the Red Deer River at Ardley and about 100 miles of main canal to two main reservoirs—Craig Lake and Hamilton Lake.

The dam will contain power installations to produce power for pumping and also for sale commercially. An estimated 20,000,000 kwh. of water power will be available for sale when fully developed. Engineering topographic and plain table surveys on lands proposed for irrigation are all but completed. Engineering surveys on proposed irrigation works are also nearing a stage of completion and negotiations are under way to finalize all those phases of study pertinent to the development of the project.

Irrigation Development in British Columbia.—Irrigation development in British Columbia has been undertaken in connection with the Veterans' Land Act and at the request of the British Columbia Government. Three projects, namely, the Chase irrigation project and the Johnstone Western Canada ranching projects No. 1 and No. 2, have been completed within the South Thompson Valley area. On these projects, 809 acres of land have been developed for irrigation for the benefit of approximately 40 veterans of World War II.

In the Okanagan Valley three new projects have been completed, the Westbank irrigation project and the Bankhead project near Kelowna, and the Cawston Benches project located east of the town of Keremeos. The three projects irrigate 1,782 acres of land and provide locations for 170 veterans of World War II.

Intensive farming is practiced both in the Okanagan and South Thompson Valleys. The land developed for irrigation by P.F.R.A. will be used mainly for the growing of small fruits and vegetables and for dairying.

New projects are constantly being investigated as potential development areas. During the year ended Mar. 31, 1952, complete investigation reports were completed for: Lister Project, Creston; Grandview Flats Project, Vernon; Black Mountain Irrigation Project, Black Mountain Irrigation District; Salmon Arm Irrigation Project, Salmon Arm; Pitt Meadows Dyking District No. 1, Port Coquitlam; British Columbia Fruitlands Irrigation Project, between Kamloops and Tranquille; and Penticton West Benches Project, Penticton.

Major Reclamation Projects.—*Riding Mountain Reclamation Project.*—Extensive investigations have been undertaken by P.F.R.A. in the Riding Mountain area at the request of the Manitoba Government. A serious flood problem exists on a number of streams flowing off the north and east slopes of Riding Mountain and Duck Mountain, causing damage to a large area of valuable agricultural land. P.F.R.A. was asked to devise and carry out a plan to relieve a land area of over 252,000 acres affected by flooding.

The cost of reclamation in the area is borne jointly by the Government of Canada and the Government of Manitoba. Construction work so far has centred mainly along Edwards and Mink Creeks in the Riding Mountain area. The work consists of clearing and dyking stream channels and straightening the alignment of channels by building stream cutoffs and diversions. The larger portion of the work on these two streams was completed in 1951.

Stream bank erosion studies are also being continued on streams of Riding Mountain to stabilize stream banks and minimize erosion problems. It will be necessary to continue the studies for a number of years before definite results can be presented.

Saskatchewan River Reclamation Project.—Consideration has been given by P.F.R.A. during the past two years to the possibility of successfully reclaiming land for agriculture in the Pasquia area of the Saskatchewan River Delta region near the town of The Pas in Manitoba. Surveys and investigations are under way in the area to determine the feasibility of development. The work is being undertaken pursuant to a request made to the Government of Canada by the Provincial Governments of Manitoba and Saskatchewan.

A preliminary report on survey activities has been prepared and has been submitted to the Manitoba Government for consideration. Preliminary survey results indicate the possibility of reclaiming 96,000 acres of land in the area that would be suitable for cultivation if protected from floods and another 10,000 acres suitable for grazing.

Assiniboine River Project.—This project was undertaken as a direct result of damaging floods that occurred in 1950 in the vicinity of Winnipeg from the Assiniboine and Red Rivers. The project is being undertaken at the request of the Manitoba Government to prevent further flooding on the Assiniboine River, particularly between Brandon and Virden and between Portage la Prairie and Headling where thousands of acres of valuable agricultural land have been repeatedly inundated. All the studies undertaken are in conjunction with the Red River Basin investigation currently being carried out.

Several alternative plans are being investigated to divert excess water from the Assiniboine River during flood stages. Detailed study is being given to water runoff data in the Assiniboine River Drainage Basin and the possibilities of building water-storage works on the headwaters of the Assiniboine River.

Lillooet Valley Reclamation Project.—The Lillooet Valley Reclamation project has been undertaken upon agreement between the Government of Canada, the Government of British Columbia and the Pemberton Valley Reclamation District. This project is located in the Lillooet River Valley above and below the town of Pemberton and its objective is to protect lands now under cultivation from flooding and to reclaim additional lands by dyking and drainage. The land to be reclaimed will ultimately amount to 14,000 acres, which will allow farmers in the district to increase their holdings and also permit the settlement of hundreds of additional inhabitants.

Construction work to deepen and straighten the channel leading from Lillooet Lake to Green Lake, below the town of Pemberton, was completed during the 1949 construction season. The construction of dykes and drains to reclaim the flooded areas along Miller Creek to Ryan Creek and Green River to Miller Creek has been almost completed. No damage from flooding occurred in the protected areas during 1951-52.

Land Utilization

In addition to cultural and water-conservation activities, the rehabilitation of drought areas involves the conversion of large tracts of land proved to be unsuitable for crop production, which had initially been cultivated to a permanent grass cover for live-stock production, and the relocation of farmers residing thereon. To this end the P.F.R.A.'s Land Utilization Program has constructed 57 operating pasture units, resulting in the reclamation of 1,590,200 acres of submarginal land. During the 1951-52 construction season, 149.5 miles of pasture fence were built which enclosed 69,120 acres in sections of three new pastures under construction and included extensions to eight established pastures. The three new pastures under construction are the Royal Pasture near Shellbrook, Sask., the Mantario Pasture near Alsask, Sask., and the Antelope Pasture near Laverna, Sask. Although these pastures were not completed entirely, the demand of local residents persuaded P.F.R.A. to begin pasture operations in 1952.

During the year ended Mar. 31, 1952, summer grazing was provided for over 70,000 head of live stock owned by between 5,500 and 6,000 patrons living on lands adjacent to these pastures.

An extensive pasture improvement program is in effect on all pastures and is immediately initiated as soon as new areas are enclosed. This policy has more than doubled the 1938 average carrying capacity on pasture land. The three improvement policies most extensively practiced in all pastures are: (1) regrassing—since 1938 approximately 160,000 acres of land in community pastures have been regrassed; (2) development of stock-watering sites—to Mar. 31, 1952, nearly 1,000 stock-watering dams, dugouts and wells have been constructed in community pastures for the purpose of facilitating the more efficient utilization of grass resources; and (3) pasture management and controlled grazing—with the application of scientific principles to the proper utilization of grass resources on pasture lands, P.F.R.A. has been able to greatly increase the beneficial use of grass resources.

PRAIRIE FARM ASSISTANCE ACT

The Prairie Farm Assistance Act, passed in 1939 and administered by the Federal Department of Agriculture, provides for direct money payments by the Federal Government, on an acreage basis, to farmers in areas of low crop yields in the Prairie Provinces and the Peace River District of British Columbia. The Act was designed to assist the municipalities and provinces, in years of crop failure, to meet relief expenditures which would normally be too great to be assumed by them. The Act provides that payments be made to farmers under certain conditions and terms and, in order that the Federal Government's costs may be defrayed to some extent, it is required that 1 p.c. of the purchase price of all grains (wheat, oats, barley and rye) marketed in the Prairie Provinces be paid to the Federal Government and set aside in a special fund for the purposes of the Act.

If the farmer, who may be an owner, a tenant, or a member of a co-operative farm association engaged in farming, is located in a crop-failure area, he may be awarded assistance on not more than one-half of the cultivated land or a maximum of 200 acres. The rates of payment range up to \$2.50 per acre.

From the inception of the scheme to Feb. 23, 1952, the total amount paid out under the Act was \$138,665,114. The amount collected under the 1 p.c. levy to Dec. 31, 1951, was \$58,455,486.

MARITIME MARSHLANDS REHABILITATION ACT

The marshlands of Prince Edward Island, Nova Scotia and New Brunswick are among the more productive soils in Canada when protected and properly cultivated. They are composed of deposits laid down by tidal waters and are, for the most part, adjacent to the Bay of Fundy.

The initial areas were reclaimed as early as 1630 and since that time about 80,000 acres have been protected by dykes and aboiteaux. These structures prevented flooding by tide water and permitted cultivation after drainage had been carried out. The original structures were made by hand labour and simple tools. Earth-moving equipment was not used until after 1940.

Through a variety of circumstances, i.e., loss of cattle markets, loss of hay markets and the increase in labour costs, maintenance of the protective structures was not adequately carried out and, in many cases, deterioration of the structures resulted. Because the marshlands, when protected, can play such an important role in the agricultural economy of the provinces concerned, the Government of Canada and the Provincial Governments of Nova Scotia and New Brunswick passed legislation permitting them to carry on a program of reclamation and rehabilitation of these lands. The federal Act, the Maritime Marshland Rehabilitation Act, was passed in 1948. Complementary provincial marshland reclamation Acts were passed by both Nova Scotia and New Brunswick in 1949. These Acts permitted agreements to be signed whereby the Government of Canada would construct or reconstruct the protective works, normally called dykes, aboiteaux and breakwaters, and also would assume the responsibility of maintaining these works until such time as they could be turned back to the provinces. The Federal Government is responsible also for any engineering work in connection with the complete program. The provinces are responsible for the organization of the marsh areas, the fresh-water drainage and acquisition of any land required. They are responsible also for the instigation and follow-up of a suitable land-use program.

In 1949 an administrative and operational group was established in the Maritimes by the Federal Department of Agriculture and the program of reclamation was initiated. Modern design and construction principles will be used for the building of protective structures, bearing in mind the basic principles of the older methods used. It is estimated that 70,000 or 80,000 acres, well drained and well farmed, will eventually be protected from the tide.

By Mar. 31, 1951, the provinces had asked to have 92 areas considered for reclamation purposes. These comprised 19,240 acres of marshland in New Brunswick, 22,570 acres in Nova Scotia and 250 acres in Prince Edward Island. It is estimated that the 42,060 acres of marshland in the three provinces constitute an integral part of 300,100 acres of farm land.

By the end of the 1950 construction season, protective works of a major type had been carried out on a total of 21 projects. In addition, 45 areas had received work on protective structures to some extent, placing them in a position to withstand the action of tidal waters until major reconstruction could be carried out.

Investigations to determine the advisability of constructing a large structure to eliminate the need for many miles of dyke and many aboiteaux were being carried out on the Annapolis River in Nova Scotia and on the Tantramar and Shepody Rivers in New Brunswick.

Considerable progress was made in the establishment of standard structures and standard methods of modern construction. New designs, based on up-to-date engineering knowledge and techniques, were under development with particular reference to soil mechanics.

Subsection 2.—Provincial Projects

Saskatchewan.*—Crown lands have been administered by the Lands Branch of the Saskatchewan Department of Agriculture since Apr. 1, 1947. A further development was the establishment of a Conservation and Development Branch on Apr. 1, 1949, which is responsible for the following: (1) development of irrigation; (2) reclamation of land by flood control and drainage; (3) the restoration of misused land and the development of under-utilized land; (4) the improvement of unoccupied land for agricultural settlement; (5) the construction of community pastures not provided for in the agreement with the Federal Government or outside the area served by the P.F.R.A. program.

The work of the Department in the field of agricultural rehabilitation and reclamation is based on the co-ordination of the federal P.F.R.A. program and the Provincial Department of Agriculture conservation and development activity. A closely knit working arrangement is fostered with respect to the development of federal and provincial projects.

The following is a summary of the activities of the Saskatchewan Department of Agriculture in accordance with the division of responsibility set out above.

There were 16 dry-land feed and fodder projects under development on Dec. 31, 1951. These projects were located on lands that have been under-utilized or that have been settled but abandoned because they were not suitable for arable agriculture. The area within the boundaries of the projects totalled 43,990 acres with 16,590 acres seeded to forage and 5,965 acres in preparation for seeding.

Five irrigated fodder projects located in or close to winter feed-deficient areas are under development; these include 5,800 acres of which 5,475 acres had, to Dec. 31, 1951, been prepared for irrigation, seeded or were in the process of being seeded to forage crops.

The Department has also assisted seven co-operative associations and rural municipalities in developing fodder-reserve projects. These projects include 4,160 acres of which 1,000 acres have been seeded to forage crops and 1,050 acres are in preparation for seeding.

Since Apr. 1, 1949, the installation of secondary distribution systems on irrigation projects for which storage and main canals had been constructed by P.F.R.A. brought an additional 17,668 acres in Saskatchewan under "the ditch". During the same period, 26 water-users districts were established with 684 farmer members.

The activity in the developing and promoting of community pastures outside the scope of the P.F.R.A. program resulted in the construction and improvement of 29 pastures comprising 354,000 acres. These pastures are operated as community pastures by the Lands Branch of the Department or by the municipality in which they are located, or by co-operative community pasture associations.

During 1951 provincial community pastures provided grazing for 7,133 head of live stock owned by 407 vicinity farmers.

* Prepared under the direction of W. H. Horner, Deputy Minister, Department of Agriculture, Regina, Sask.

The reclamation of lands by flood control and drainage is proceeding in 14 separate areas in the Province. Emphasis is being placed on the northeastern area bordering the presently settled northeastern portion of the Province. Lands benefited by drainage works constructed to date total 46,900 acres. Surveys for drainage and flood control works that will benefit 160,500 acres have been completed. Minor channel improvement works to secure more adequate drainage have been constructed in three sub-drainage areas in the southeastern portion of the Province.

Miscellaneous projects undertaken include the re-grassing of 14,700 acres and the planting of about 300,000 trees. Assistance is available to municipalities and local organizations for tree planting either by way of loan of departmentally owned machinery or financially for the purchase of machinery.

In areas of northern Saskatchewan concentrated groups of farmers outside the P.F.R.A. area have been assisted in the construction of dugouts and dams in developing stock-watering facilities.

Six conservation and development areas comprising a total of 1,316,340 acres have been established.

Activity during 1950 and 1951 in the improvement of unoccupied land for agricultural settlement included the designing of five new settlement projects containing 262 farm units. Under supervision of the Lands Branch, contracts were let for the clearing and breaking of 50 acres on each farm. Each of these farms will be under a 33-year lease that provides for specific conservation measures by Apr. 1, 1952.

Alberta.*—Extensive surveys have been carried out from time to time in Alberta to determine the distribution and extent of the available water supplies in the Province and their most beneficial use for irrigation, water power and other purposes. Sect. 69 of the Alberta Water Resources Act gives the Minister of the Department of Water Resources wide powers with respect to investigation of the water resources of the Province.

Much of the work done in more recent years has been carried out by the Federal Government in co-operation with the Provincial Government. Stream measurement is now done by the Hydrometric Service of the Federal Department of Resources and Development, while irrigation surveys are carried out largely by the Water Development Organization under P.F.R.A. The Water Resources Division, Federal Department of Resources and Development, and the power companies operating in the Province also assist in the program.

The Calgary Power Company has recently completed a fairly extensive and detailed water-power survey of the Bow River and its tributaries and, as a result, the Company has constructed a number of water-power reservoirs and power stations on the stream.

By Order in Council, dated Feb. 17, 1941, the St. Mary and Milk River Water Development Committee was set up to investigate and report on the many phases of irrigation development of southern Alberta including water supplies available to Canada from the Waterton, Belly, St. Mary and Milk Rivers; the most feasible plan to put these waters to their most beneficial use; the benefits which such water

* Prepared by J. L. Reid, Secretary, Alberta Power Commission, Edmonton, Alta. More detailed information regarding early basic surveys and the development of irrigation projects is given at pp. 375-377 of the 1951 Year Book.

development projects would confer on federal and provincial interests; the allocation of costs; and methods which might be adopted to finance such developments. The Committee completed a very thorough investigation and published a full and comprehensive report, not only on the projects on the international streams, but also on other projects in Alberta.

The following is a list of projects in operation in Alberta, together with irrigable areas and construction costs. Certain of these developments have been brought to fruition as joint efforts by the Province of Alberta and the federal authorities under P.F.R.A.

<i>Project</i>	<i>Irrigable Area</i>	<i>Construction Cost</i>
	acres	\$
Canada Land and Irrigation Company ¹	110,500	7,000,000
New West Irrigation District.....	4,500	210,000
Western Irrigation District.....	50,000	5,860,000
St. Mary and Milk Rivers Development.....	84,000	2,134,000
Magrath Irrigation District.....	7,000	200,000
Raymond Irrigation District.....	15,100	170,000
Taber Irrigation District.....	21,500	300,000
Eastern Irrigation District.....	281,000	13,000,000
Lethbridge Northern Irrigation District.....	98,135	5,400,000
United Irrigation District.....	34,000	550,000
Highwood-Mosquito Creek Project.....	"	...
Little Bow Irrigation District.....	"	20,000
Mountain View Irrigation District.....	3,600	30,000
Leavitt Irrigation District.....	4,400	65,578
Aetna Irrigation District.....	7,300	48,705
Macleod Creek Irrigation District.....	3,000	202,000
Ross Creek Irrigation District.....	2,400	234,000
Small private projects (approximately 700).....	70,000	700,000 ²
TOTALS.....	794,435	36,124,283

¹ See Bow River Project, pp. 395-396.

² Stockwater.

³ Approximate.

The following paragraphs outline developments during 1951-52.

St. Mary River Project.—The construction of the St. Mary and Milk Rivers development will make possible the addition of 390,000 acres to the irrigable area. This, together with the area now under irrigation under the old Alberta Railway and Irrigation Company's irrigation project (some 120,000 acres), will raise the total for the project to approximately 510,000 acres.

During 1951, the Water Resources Office spent about \$2,500,000 on the St. Mary River development for the construction of canals, purchase of material, acquiring right of way and colonization. The completion of the St. Mary River dam in 1951 is an outstanding contribution to irrigation development in Alberta.

Expenditures on the development in 1949-50 amounted to \$94,107 and in 1950-51 to \$1,673,563.

Bow River Project.—During 1951, P.F.R.A. commenced work on the enlargement of the main canals in order to provide for the extension of the project and for the irrigation of an additional 102,000 acres of prairie land. The total irrigable area of this project will be about 240,000 acres.

Work on the proposed P.F.R.A. earth dam on the Little Bow River is expected to start in 1952 and active participation by the Water Resources Office is expected to commence in 1953.

William Pearce Irrigation Project.—Topographical and soil surveys were continued during 1951 on this project and soil, climatic and engineering reports were made. Because of the excessive cost of constructing two separate projects, one in Saskatchewan and another in Alberta, a combined Alberta-Saskatchewan development has been proposed and investigated to some extent. However, a Royal Commission has recently been appointed by the Federal Government to advise regarding the Saskatchewan project and it is probable that a combined development will be investigated by the Commission.

Macleod Irrigation District.—During 1951, the Water Resources Office extended further assistance to the Macleod Irrigation District by improving laterals. P.F.R.A. is investigating ways and means of augmenting the water supply which is insufficient for the project. Expenditures by the Province on this project were: 1948-49, \$7,783; 1949-50, \$10,127; 1950-51, \$10,349; and 1951-52, \$13,603.

Ross Creek Irrigation District.—The construction phase of this project was completed in 1951 and is now considered ready for operation. Classification of the irrigable area has commenced and it is estimated that the area classified as irrigable will amount to 2,400 acres.

P.F.R.A. installed a proper headgate and improved the spillway of its diversion structure on Gros Ventre Creek thus ensuring proper operation of the main canal. Expenditures by the Province on this project were: 1950-51, \$52,964, and 1951-52, \$46,469.

Heart River Diversion Project.—This multiple-purpose project was brought to virtual completion in 1951. The concrete spillway at the dam was completed and two 6' x 6' steel headgates installed. During the spring runoff the reservoir on the Heart River filled up rapidly and overflowed into Winagami Lake through the north diversion canal, completely filling the lake, and the overflow in the south channel reached sizeable dimensions. In 1951 a combined control structure and roadway was built in the inlet to the south channel thus permitting control of the level of Winagami Lake. The project held back over 200,000 acre-feet of water during the 1951 runoff. Purchase of flooded areas around Winagami Lake was under way.

An aerial survey resulted in the production of an accurate topographic map from the southeast corner of Winagami Lake over to the Heart River. It has been established that a two-mile canal can readily be built to exploit the storage of the lake for power development. The power head involved is 70 ft. and the canal would be designed to carry 200 c.f.s. Economic aspects of this project are under investigation.

The town of McLennan is desirous of bringing water for domestic use from Winagami Lake by canal to Kimiwan Lake.

West Prairie River Control.—To protect the town of High Prairie and the road leading north from that town, the Water Resources Office has built a new bed for the West Prairie River with dykes on each side for a distance of about 1,500 ft., around a portion of the old bed that had become blocked with logs and silt.

A study is being made of the flooding in the area north and east of High Prairie, where a problem is created by logs and silt brought down from the Swan Hills.

Michichi Creek Diversion.—In 1951 the Department of Public Works started the construction of a new channel for Michichi Creek in North Drumheller to prevent flooding. The project will be completed in 1952.

Ground Water.—An inventory of ground-water supplies was undertaken in 1951 with the co-operation of the Federal Department of Agriculture which reported artesian or semi-artesian wells. Much valuable data has been obtained from the oil exploration companies on the results of striking water in their shot holes.

Highwood River Protection.—Further dredging was required at High River to keep the full force of the river away from the south bank and more work will be required in 1952 to ensure that the river will not jump over into the Little Bow River. High water conditions in 1951 did not improve the situation at High River and further work is essential.

Peace River Dugout Program.—Since the inception of this program, 1,900 dugouts have been constructed, the Department of Agriculture contributing five cents per cubic yard to a maximum of \$100. The average assistance given has been about \$90 per dugout and the average cost of earth work 20 cents per cubic yard. On this basis the actual cost value of dugouts constructed was approximately \$684,000.

British Columbia.*—About 17 p.c. of the arable land in British Columbia is under cultivation and nearly all the grazing area is being utilized. The 1,100,000 acres developed give a ratio of approximately one acre per person. Within this arable area there exists 150,000 acres of irrigated land which is considered to be less than one-half the ultimate land that can be served by water (approximately 350,000 acres).

About two-thirds of the irrigated area is made up of individual projects while the remaining 50,000 acres cover the larger irrigation projects listed below.

* Prepared by E. H. Tredcroft, Comptroller of Water Rights, Department of Lands and Forests, Victoria, B.C.

6.—Major Irrigation Projects in British Columbia, 1951

Project	Water Supply	Irrigable Area	Irrigated Area	Locality
		acres	acres	
Provincial Irrigation System— Southern Okanagan Lands Project.....	Okanagan River.....	6,130	4,530	Okanagan Valley
Municipal Irrigation Systems— Penticton Municipality..... Summerland Municipality....	Penticton and Ellis Creeks..... Trout and Ellis Creeks.....	2,720 3,464	2,232 3,418	Okanagan Valley " "
Irrigation Districts— Balfour..... Barriere.....	Laird Creek..... Barriere River.....	240 225	150 129	Kootenay Valley North Thompson Valley
B.C. Fruitlands.....	Jameson and North Thompson Rivers.....	3,200	2,800	North Thompson Valley
Black Mountain.....	Belgo Creek.....	5,124	3,924	Okanagan Valley
Black Sage.....	Okanagan River.....	170	170	" "
Blueberry Creek.....	Blueberry Creek.....	250	40	Columbia Valley
Cawston.....	Similkameen River.....	601	275	Okanagan Valley
Covert.....	Fourth of July Creek.....	272	272	Near Grand Forks
Darfield.....	Lindquist Creek.....	363	200	North Thompson Valley
East Creston.....	Arrow Creek.....	1,400	1,160	Kootenay Valley
Ellison.....	Kelowna Creek.....	733	658	Okanagan Valley
Girouard.....	Swan Lake Creek.....	115	80	" "
Glenmore.....	Kelowna Creek.....	2,566	2,005	" "
Grand Forks.....	Kettle River.....	3,000	2,500	Kettle Valley
Heffley.....	Heffley Creek and North Thompson River.....	2,700	1,632	North Thompson Valley

6.—Major Irrigation Projects in British Columbia, 1951—concluded

Project	Water Supply	Irrigable Area	Irrigated Area	Locality
		acres	acres	
Irrigation Districts—concl.				
Kaleden.....	Marron Creek.....	550	530	Okanagan Valley
Keremeos.....	Asinola River and Keremeos Creek.....	1,160	1,000	Similkameen Valley
Malcolm Horie.....	Joseph Creek.....	200	150	Near Cranbrook
Merritt Centre.....	Coldwater River.....	125	125	Nicola Valley
Naramata.....	Lequime and Robinson Creeks.....	966	916	Okanagan Valley
Okanagan Falls.....	Shuttleworth Creek.....	408	239	" "
Okanagan Mission.....	Bellevue (Sawmill) Creek—Okanagan Lake.....	750	670	" "
Osoyoos.....	Haynes Creek and Osoyoos Lake.....	230	80	Oliver—Osoyoos
Oyama.....	Long Lake.....	303	293	Okanagan Valley
Peachland.....	Peachland Creek.....	771	455	" "
Renata.....	Dog Creek.....	200	140	Columbia Valley
Robson.....	Pass Creek.....	262	262	" "
Scotty Creek.....	Scott Creek.....	1,863	863	Okanagan Valley
South East Kelowna.....	Hydraulic Creek.....	4,076	2,623	" "
South Vernon.....	Long Lake.....	208	208	Vernon
Trout Creek.....	Trout Creek.....	403	303	Okanagan Valley
Valleyview.....	South Thompson River.....	107	107	" "
Vermilion.....	Kindersley Creek.....	800	400	Columbia Valley
Vernon.....	Coldstream and Jones Creek.....	12,095	7,595	Okanagan Valley
Vinsulla.....	Knouff (Sullivan) Creek.....	298	155	Kamloops
Westbank.....	Powers Creek.....	930	765	Okanagan Valley
Winfield and Okanagan Centre.....	Vernon Creek.....	2,025	1,903	" "
Wynndel.....	Duck Creek.....	512	410	Kootenay Valley
Irrigation Companies—				
Columbia Valley Irrigated Fruitlands Company.....	Bruce Creek.....	2,000	367	Columbia Valley
Woods Lake Water Company.....	Oyama Creek.....	792	792	Okanagan Valley
Water-Users Communities—				
Bullock Creek.....	Bullock Creek Falls.....	175	100	Lower Similkameen
Boundary.....	Osoyoos Lake.....	..	95	Oliver—Osoyoos
Kelowna Area.....	Various (12 Branches).....	..	2,655	..
Meadow Valley.....	Dark Creek.....	..	240	Summerland
Powers Creek.....	..	..	180	Westbank—Peachland
Trepanier.....	..	..	195	Westbank—Peachland
Tronson.....	..	117	117	Vernon
Miscellaneous—				
Dominion Experimental Station.....	Okanagan Lake.....	160	135	Summerland
W. Hochsteiner (independent operator).....	Osoyoos Lake.....	..	178	Oliver—Osoyoos

Section 4.—Statistics of Agriculture*

The collection, compilation and publication of statistics relating to agriculture is a responsibility of the Dominion Bureau of Statistics. Valuable information is obtained through the Decennial Census of Canada and each Census of the Prairie Provinces. Very few of the results from the 1951 Census were available when this Chapter of the Year Book was prepared but have been incorporated wherever possible. Detailed agricultural census statistics are published in bulletin form and may be secured from the Dominion Statistician, Ottawa.

The Bureau also collects and publishes primary and secondary statistics of agriculture on an annual and monthly basis. The primary statistics relate mainly to the reporting of crop conditions, crop and live-stock estimates, values of farm lands, wages of farm labour and prices received by farmers for their products. The secondary statistics relate to the marketing of grain and live stock, dairying, milling and sugar industries and cold-storage holdings.

* Revised in the Agriculture Division, Dominion Bureau of Statistics.

In the collection of annual and monthly statistics, the Federal Department of Agriculture and the Provincial Departments of Agriculture, as well as such agencies as the Board of Grain Commissioners and the Canadian Wheat Board, co-operate with the Bureau. Many thousands of farmers throughout Canada also voluntarily send in reports.

The figures for 1949 to 1951 (except for 1951 Census data) contained in this Section do not include those for Newfoundland, though that Province came into Confederation on Mar. 31, 1949. Agriculture plays a relatively minor part in Newfoundland's economy. The climate is not well suited to the production of any but the hardier crops and the amount of pasture land and arable soil is limited.

Subsection 1.—Farm Income and Capital

Farm Cash Income.—Estimates of farm cash income are based on reports of marketings and prices received by farmers for principal farm products and are subject to revision. The estimates include the amounts paid on account of wheat participation certificates, oats, barley and flax adjusting and equalization payments and those Federal and Provincial Government payments that farmers receive as subsidies to prices. It is estimated that, during 1950, Canadian farmers (excluding Newfoundland) received \$2,219,600,000 from the sale of farm products and from grain equalization and participation payments on previous years' crops. This estimate is 10.7 p.c. below the record high figure of \$2,486,600,000 for 1949. In addition to the above receipts, supplementary payments made under the provisions of the Prairie Farm Assistance Act amounting to \$13,800,000 were paid to farmers in the drought-stricken areas of the Prairie Provinces. This figure compares with \$20,700,000 and \$17,600,000 paid during 1948 and 1949, respectively.

The decline in the 1950 farm cash income was largely attributable to a drop in the cash receipts from the sale of grains and substantially smaller grain equalization and adjustment payments to prairie farmers. The latter amounted to nearly \$50,000,000 compared with approximately \$220,000,000 in 1949. A lowering of the initial price to producers and a poor-quality crop combined to offset increased marketings during 1950 and give a cash income from the sale of wheat of \$379,100,000, almost 20 p.c. below the returns realized in 1949. Commencing Aug. 1, 1950, the initial price to producers of No. 1 Northern wheat, in store at the Lakehead, was lowered from \$1.75 to \$1.40 per bu. Severe frosts in the Prairie Provinces during August caused considerable damage to the crop and sharply reduced the average grade.

Receipts from the sale of coarse grains during 1950 were also below the 1949 level, partly because of smaller marketings and lower-quality crops. From Aug. 1, 1949, coarse grains came under the terms of the government compulsory marketing scheme whereby farmers received initial prices only at time of delivery. These prices were based on 60 cents per bu. for No. 1 Feed oats and 87 cents per bu. for No. 1 Feed barley, in store Fort William-Port Arthur, and were lower than the free market prices prevailing during the first seven months of 1949. However, in addition to

these initial prices, farmers also received producer participation certificates which entitled them to share, at a later date, any surpluses accumulated by the Canadian Wheat Board through the sale of these grains. During the last quarter of 1950 about \$42,000,000 was distributed in the form of participation payments for the 1949 crop of oats and barley.

An increase in total live-stock returns from \$829,000,000 in 1949 to \$895,600,000 in 1950 was largely due to higher average prices for all live stock except hogs, since marketings were slightly lower. Higher prices for cattle reflected a continuing strong demand in the United States for Canadian beef. Declines in marketings of cattle and calves and of sheep and lambs in 1950 were more than compensated for by the higher prices. On the other hand, a United Kingdom-Canada bacon contract at prices below those received in 1949 resulted in lower average hog prices for 1950 and the income from this source amounted to \$317,500,000 compared with \$327,900,000 in 1949. Income from the sale of dairy products, estimated at \$330,100,000, was 6.2 p.c. below the 1949 total of \$352,000,000. Reduced income from the sale of eggs in 1950 resulted from a combination of smaller marketings and lower prices.

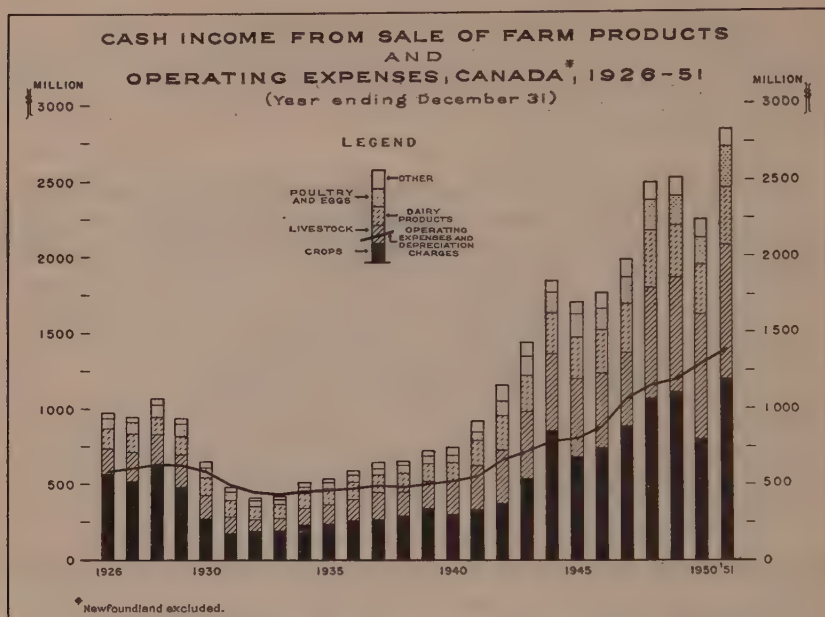
7.—Cash Income from the Sale of Farm Products, by Sources, 1949 and 1950

(Exclusive of Newfoundland)

NOTE.—Figures for the years 1926 to 1948, inclusive, will be found in D.B.S. Reference Paper No. 25 (Part II).

Item	1949	1950	Item	1949	1950
	\$'000	\$'000		\$'000	\$'000
Grains, Seeds and Hay—			Live Stock—		
Wheat.....	470,338	379,145	Cattle and calves.....	412,629	486,707
Wheat participation and adjustment payments.....	211,337	7,525	Sheep and lambs.....	14,035	16,267
Oats.....	58,303	44,022	Hogs.....	327,879	317,463
Barley.....	58,363	46,119	Poultry.....	74,501	75,132
Oats and barley participation and equalization payments.....	8,651	42,190	Totals, Live Stock.....	829,044	895,569
Rye.....	14,203	11,209	Dairy products.....	351,955	330,088
Flax.....	15,384	9,473	Fruits.....	43,968	41,165
Flaxseed adjustment payments.....	—	30	Other Principal Farm Products—		
Corn.....	10,586	6,349	Eggs.....	110,667	96,147
Clover and grass seed.....	14,317	13,796	Wool.....	1,988	3,922
Hay and clover.....	4,126	4,274	Honey.....	4,968	4,144
Totals, Grains, Seeds and Hay.....	865,608	564,132	Maple products.....	6,167	7,180
Vegetables and Other Field Crops—			Totals, Other Principal Farm Products.....	123,790	111,393
Potatoes.....	43,582	39,605	Miscellaneous farm products... Forest products sold off farms. Fur farming.....	45,871	41,785
Vegetables.....	45,866	42,989		61,945	74,728
Sugar beets.....	10,507	13,479		9,515	7,624
Tobacco.....	54,416	56,759	Totals, Cash Income from Farm Products.....	2,486,598	2,219,642
Fibre flax.....	531	326	Supplementary payments¹.....	17,628	13,806
Totals, Vegetables and Other Field Crops.....	154,902	153,158	Totals, Cash Income.....	2,504,226	2,233,448

¹ Includes payments made under the Prairie Farm Assistance Act; other Government subsidies have been included in cash income from individual commodities.



8.—Cash Income from the Sale of Farm Products, by Provinces, 1946-50

NOTE.—Figures for the years 1926 to 1945, inclusive, will be found in D.B.S. Reference Paper No. 25 (Part II).

Province	1946	1947	1948	1949	1950
	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland.....	---	---	---	---	21,799
Prince Edward Island.....	17,109	17,602	22,295	20,680	39,452
Nova Scotia.....	34,356	32,691	36,990	35,262	46,858
New Brunswick.....	35,972	39,904	45,634	42,846	361,005
Quebec.....	256,465	286,909	356,471	344,488	678,483
Ontario.....	481,126	543,415	664,234	678,252	195,408
Manitoba.....	167,253	181,564	247,536	245,246	408,288
Saskatchewan.....	387,589	428,489	533,987	566,062	368,007
Alberta.....	280,417	340,308	452,350	452,453	100,342
British Columbia.....	82,132	94,165	103,651	101,309	
Totals.....	1,742,419	1,965,047	2,463,148	2,486,595	2,219,642

Farm Net Income.—Preliminary estimates indicate that farmers' net income from farming operations in 1950 amounted to \$1,451,700,000, almost 12 p.c. less than the 1949 total of \$1,640,500,000 and about 14 p.c. less than the record high of \$1,681,600,000 realized in 1948. This decline came as a result of a substantially lower cash income, a smaller value of income in kind and a continued increase in farm operating expenses and depreciation charges. Compared with 1949, cash income from the sale of farm products at \$2,219,600,000 was down nearly 11 p.c., while income in kind at \$383,500,000 declined about 1 p.c. Farm operating expenses and depreciation charges totalling \$1,296,000,000 were almost 11 p.c. higher than in 1949. Increases in the year-end, farm-held stocks of grain in 1950 more than offset a decline in year-end live-stock numbers to give an over-all inventory increase for the first time since 1943.

9.—Net Income of Farm Operators from Farming Operations, 1948-50

(Exclusive of Newfoundland)

Item	1948	1949	1950
	\$'000	\$'000	\$'000
1. Cash income from sale of farm products.....	2,463,148	2,486,598	2,219,642
2. Income in kind.....	411,732	387,551	383,478
3. Value of changes in inventory.....	-64,684	-71,655	+130,729
4. Gross income (Items 1+2+3).....	2,810,196	2,802,494	2,733,849
5. Operating expenses.....	1,008,862	1,026,231	1,121,881
6. Depreciation charges.....	140,519	153,387	174,669
7. Total operating and depreciation (Items 5+6).....	1,149,381	1,179,618	1,296,550
8. Net income, excluding supplementary payments (Items 4-7).....	1,660,815	1,622,876	1,437,899
9. Supplementary payments.....	20,748	17,628	13,806
10. Net income of farm operators from farming operations (Items 8+9) ¹	1,681,563	1,640,504	1,451,705

¹ Includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act and small belated payments made under the provisions of the Wheat Acreage Reduction Program.

10.—Net Income of Farm Operators from Farming Operations, by Provinces, 1948-50

NOTE.—Net income includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act and small belated payments made under the provisions of the Wheat Acreage Reduction Program.

Province	1948	1949	1950
	\$'000	\$'000	\$'000
Newfoundland.....	...	...	...
Prince Edward Island.....	13,381	13,036	12,914
Nova Scotia.....	20,943	20,498	23,565
New Brunswick.....	33,868	32,992	33,463
Quebec.....	252,912	248,134	252,024
Ontario.....	438,169	458,546	459,584
Manitoba.....	182,666	154,087	126,346
Saskatchewan.....	376,379	385,287	265,201
Alberta.....	306,802	270,325	236,406
British Columbia.....	56,443	57,599	42,202
Totals	1,681,563	1,640,504	1,451,705

Value of Farm Capital.—The items included in the term "farm capital" as used in Table 11 are: lands and buildings; implements and machinery, including motor-trucks and automobiles; and live stock, including poultry and animals on fur farms. The value of lands and buildings for intercensal years is based on the value of occupied farm lands reported annually by crop correspondents; annual values of farm implements and machinery are estimated on the basis of sales reported each year.

11.—Current Value of Farm Capital, by Provinces, 1949 and 1950

Province	1949				1950			
	Lands and Buildings	Implements and Machinery ¹	Live Stock ²	Total	Lands and Buildings	Implements and Machinery ¹	Live Stock ²	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland.....	...	...	...	...	...	...	...	...
P.E. Island.....	52,596	8,066	16,371	77,033	55,647	8,864	17,465	81,976
Nova Scotia.....	103,915	15,420	28,073	147,408	110,253	16,975	33,798	161,026
New Brunswick.....	104,393	15,209	28,931	148,533	118,277	16,731	31,513	166,521
Quebec.....	642,075	109,213	309,018	1,060,306	718,482	121,882	325,253	1,165,617
Ontario.....	1,320,160	238,081	521,239	2,079,480	1,394,089	279,678	582,435	2,256,202
Manitoba.....	487,424	121,919	107,142	716,485	527,880	154,209	114,933	797,022
Saskatchewan.....	1,141,563	270,100	186,541	1,598,204	1,236,313	313,107	206,102	1,755,522
Alberta.....	1,027,855	203,277	227,463	1,458,595	1,090,554	235,135	256,822	1,582,511
British Columbia.....	160,553	27,398	51,134	239,085	166,333	32,424	58,117	256,874
Totals	5,040,534	1,008,683	1,475,912	7,525,129	5,417,828	1,179,005	1,626,438	8,223,271

¹ Includes trucks and automobiles.

² Includes poultry and animals on fur farms.

Value of Farm Lands.—The average value of occupied farm land in Canada for 1950 was reported at \$43 per acre. This was an increase of 7.5 p.c. over the 1949 average value but an advance of 79.2 p.c. over the 1935-39 level. The all-Canada average is determined by weighting the provincial averages by the area of occupied farm land in each province according to the latest census figures available. The upward trend in farm land values from pre-war levels reflects, at least in part, the relative changes in the price levels of farm products and of the things that farmers buy. The Bureau's index of farm prices of agricultural products for 1950 was 160.8 p.c. above the 1935-39 level, while for the same year the index of prices of commodities and services used by farmers, including living costs, advanced 95 p.c. over the 1935-39 base-period level.

12.—Average Values per Acre of Occupied Farm Lands, Selected Years, 1910-50

NOTE.—Figures include unimproved lands and buildings.

Province	1910	1920	1927	1929	1932	1935	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Newfoundland.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
P.E. Island.....	31	49	41	43	31	31	35	32	34	37	37	41	43	42	47	51	52	55
Nova Scotia.....	25	43	37	36	28	31	33	28	31	33	35	41	41	42	46	48	49	52
New Brunswick....	19	35	30	35	24	25	29	24	25	30	33	40	40	39	44	44	45	51
Quebec.....	43	70	57	55	37	41	44	44	50	55	58	58	57	59	61	63	59	66
Ontario.....	48	70	65	60	38	42	46	46	45	48	56	58	57	59	64	68	71	75
Manitoba.....	29	39	27	26	16	17	17	16	17	18	19	20	21	25	27	34	36	39
Saskatchewan.....	22	32	26	25	16	17	15	15	14	15	15	17	18	19	21	24	24	26
Alberta.....	24	32	26	28	17	16	16	16	16	17	18	19	20	21	25	31	33	35
British Columbia...	74	175	89	90	65	58	60	58	60	62	62	64	67	70	75	79	84	87
Totals.....	33	48	38	37	24	24	25	24	25	26	28	30	30	32	35	39	40	43

Subsection 2.—Volume of Agricultural Production

The index of physical volume of agricultural production, based on the period 1935-39, inclusive, represents a measure of "net farm production". This is achieved by removing duplication, e.g., when feed grains credited to field-crop production also appear in the various forms of live stock and live-stock products.

The high point of the index, 164.2, was reached in 1942; in 1950 it stood at 139.8.

13.—Index Numbers of Physical Volume of Agricultural Production, by Provinces, 1941-50

(1935-39=100. Exclusive of Newfoundland)

NOTE.—For a description of this index, methods and coverage, see D.B.S. *Quarterly Bulletin of Agricultural Statistics* for July-September, 1949. Figures for 1935-40 are given at p. 420 of the 1950 Year Book.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1941.....	90.6	91.3	101.9	106.2	107.4	133.9	110.1	100.9	113.4	108.7
1942.....	121.9	88.5	104.0	121.7	125.0	174.2	247.8	184.2	99.9	164.2
1943.....	102.7	89.6	133.2	112.3	89.4	152.2	138.1	104.6	114.7	113.7
1944.....	119.2	107.3	136.8	131.1	114.0	145.1	196.4	125.1	140.0	140.4
1945.....	121.3	80.7	106.7	100.7	107.6	116.8	129.3	97.6	131.1	110.9
1946.....	123.6	100.3	119.6	112.2	117.6	139.1	138.7	122.7	151.9	125.6
1947.....	128.9	86.7	119.0	102.6	107.7	122.1	128.2	115.8	146.8	116.0
1948.....	133.3	91.8	124.3	121.6	119.0	143.8	131.8	118.5	143.7	125.1
1949.....	158.8	105.1	145.8	126.4	124.9	125.7	128.1	98.1	148.7	122.3
1950.....	147.5	105.0	137.0	135.5	131.6	138.4	168.1	126.5	134.4	139.5

Subsection 3.—Field Crops

The total area of principal field crops in 1950 was estimated at 62,297,000 acres, up slightly from 1949 and about 7 p.c. above the pre-war (1935-39) level. Production of the major grains in 1950 was well above that in 1949 but severe frost damage to western crops in the autumn of 1950 resulted in the marketing of large volumes of low-quality grain. Of the 1950 wheat crop only an estimated 34 p.c. graded No. 3 Northern or better, in contrast to approximately 85 p.c. of the 1949 crop qualifying for the same grades.

The gross value of production of principal field crops produced on Canadian farms in 1950, based on average prices received by farmers throughout the 1950-51 crop year, was estimated at a record \$1,854,463,000.

Acreage data for 1951 field crops are not published in the accompanying tables but may be found in the current publications of the 1951 Agricultural Census. Necessary revisions of intercensal data in Tables 14 to 17 are being prepared.

14.—Acreages and Values of Field Crops, by Provinces, 1947-50, with Five-Year Averages, 1935-39

Province	1935-39	1947	1948	1949	1950
ACREAGES					
	'000	'000	'000	'000	'000
Newfoundland.....	---	---	---	--	--
Prince Edward Island.....	482	486	487	489	498
Nova Scotia.....	552	545	524	509	505
New Brunswick.....	910	949	939	934	926
Quebec.....	6,044	6,395	6,369	6,424	6,362
Ontario.....	9,084	8,117	9,140	9,411	9,419
Manitoba.....	6,445	6,809	6,686	6,898	6,634
Saskatchewan.....	20,625	22,891	22,670	22,217	22,862
Alberta.....	13,426	13,966	13,630	14,351	14,431
British Columbia.....	487	630	596	630	660
Totals, Acreages.....	58,055	60,785	60,943	61,863	62,297
VALUES					
	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland.....	---	---	---	--	--
Prince Edward Island.....	9,374	23,270	23,484	25,526	20,330
Nova Scotia.....	12,085	22,430	25,260	22,472	23,877
New Brunswick.....	16,958	44,178	37,921	33,120	28,948
Quebec.....	87,148	170,138	195,722	193,361	211,802
Ontario.....	147,031	282,239	378,378	359,256	423,874
Manitoba.....	57,990	180,748	216,676	200,452	225,834
Saskatchewan.....	121,773	453,442	453,832	424,553	541,833
Alberta.....	116,163	347,178	348,912	283,865	347,491
British Columbia.....	14,739	33,360	33,703	34,780	30,474
Totals, Values.....	583,261	1,556,984	1,713,888	1,577,385	1,854,463

15.—Acreages, Yields and Prices of Principal Field Crops, 1949 and 1950, with Five-Year Averages, 1945-49

(Exclusive of Newfoundland)

Crop and Year	Area	Yield per Acre	Pro-duction	Aver- age Price	Total Value ¹	Crop and Year	Area	Yield per Acre	Pro-duction	Aver- age Price	Total Value ¹
	'000 acres	bu.	'000 bu.	\$ per bu.	\$'000		'000 acres	bu.	'000 bu.	\$ per bu.	\$'000
Wheat—						Flaxseed—					
Av. 1945-49	24,717	14.8	366,349	1.62	593,271	Av. 1945-49	1,135	8.2	9,253	3.84	35,489
1949.....	27,575	13.5	371,406	1.61	599,485	1949.....	322	7.1	2,284	3.31	7,570
1950.....	27,021	17.1	461,664	1.54	712,210	1950.....	560	8.4	4,686	3.47	16,260
Oats—								cwt.	'000 cwt.	\$ per cwt.	
Av. 1945-49	12,021	28.4	341,612	0.67	229,883	Potatoes—					
1949.....	11,389	27.9	317,916	0.79	251,045	Av. 1945-49	509	156.0	79,282	11.11	87,669
1950.....	11,575	36.3	419,930	0.79	331,015	1949.....	510	175.0	89,197	0.93	83,255
Barley—						1950.....	505	192.0	97,045	0.77	74,970
Av. 1945-49	6,717	21.5	144,688	0.94	136,599			ton	'000 ton	\$ per ton	
1949.....	6,017	20.0	120,408	1.30	157,124	Hay and Clover—					
1950.....	6,625	25.9	171,393	1.13	193,658	Av. 1945-49	9,911	1.54	15,297	14.92	228,281
Rye—						1949.....	9,502	1.28	12,122	19.61	237,744
Av. 1945-49	1,128	11.2	12,654	1.86	23,482	1950.....	9,254	1.40	12,913	18.11	233,900
1949.....	1,182	8.5	10,011	1.23	12,294						
1950.....	1,168	11.4	13,333	1.33	17,697	Alfalfa—					
Mixed Grains—						Av. 1945-49	1,358	2.18	2,959	15.61	46,193
Av. 1945-49	1,429	35.4	50,551	0.85	42,859	1949.....	1,489	1.75	2,602	21.15	55,031
1949.....	1,683	33.2	55,928	0.99	55,627	1950.....	1,547	2.09	3,233	19.70	63,675
1950.....	1,679	44.2	74,190	1.02	75,975						

¹ Gross value of farm production; does not represent cash income from sales.

16.—Acreages, Production and Values of Principal Field Crops, by Provinces, 1949 and 1950, with Five-Year Averages, 1945-49

(Exclusive of Newfoundland)

Province	Area			Total Production			Gross Farm Value		
	Aver- age 1945-49	1949	1950	Aver- age 1945-49	1949	1950	Aver- age 1945-49	1949	1950
	'000 ac.	'000 ac.	'000 ac.	'000 bu.	'000 bu.	'000 bu.	\$'000	\$'000	\$'000
WHEAT									
Maritimes—									
Prince Edward Island...	5	6	7	107	150	187	167	278	337
Nova Scotia.....	2	2	2	29	44	45	43	76	78
New Brunswick.....	3	4	4	55	79	90	92	149	157
Totals, Maritimes.....	10	12	13	191	273	322	302	503	572
Central Canada—									
Quebec.....	24	26	33	412	468	691	633	856	1,230
Ontario (a) winter wheat.	719	805	928	20,970	24,714	30,067	33,066	43,744	53,519
(b) spring wheat.	43	59	55	867	1,062	1,166	1,376	1,880	2,075
Totals, Central Canada..	786	890	1,016	22,249	26,244	31,924	35,075	46,480	56,824
Prairie Provinces—									
Manitoba.....	2,442	2,887	2,382	48,160	52,000	50,000	79,827	84,760	81,000
Saskatchewan.....	14,438	15,737	16,203	185,220	186,000	260,000	301,085	299,460	387,400
Alberta.....	6,920	7,900	7,251	107,540	103,000	117,000	171,983	161,710	182,520
Totals, Prairie Provinces.	23,800	26,524	25,836	340,920	341,000	427,000	552,895	545,930	650,920
British Columbia.....	122	149	157	2,989	3,889	2,418	4,999	6,572	3,893
Totals.....	24,718	27,575	27,021	366,349	371,406	461,664	593,271	599,485	712,210

**16.—Acreages, Production and Values of Principal Field Crops, by Provinces,
1949 and 1950, with Five-Year Averages, 1945-49—continued**

Province	Area			Total Production			Gross Farm Value		
	Average 1945-49	1949	1950	Average 1945-49	1949	1950	Average 1945-49	1949	1950
	'000 ac.	'000 ac.	'000 ac.	'000 bu.	'000 bu.	'000 bu.	\$'000	\$'000	\$'000
OATS									
Maritimes—									
Prince Edward Island...	118	113	113	4,379	4,407	4,972	3,356	3,614	4,375
Nova Scotia.....	69	70	69	2,389	2,780	3,169	2,039	2,558	3,201
New Brunswick.....	191	189	184	6,599	6,993	8,280	5,171	6,014	7,452
Totals, Maritimes.....	378	372	366	13,367	14,180	16,421	10,566	12,186	15,028
Central Canada—									
Quebec.....	1,481	1,509	1,546	35,462	37,574	50,620	28,745	33,817	50,114
Ontario.....	1,673	2,086	2,128	63,168	71,967	96,186	47,005	60,452	86,567
Totals, Central Canada..	3,154	3,595	3,674	98,630	109,541	146,806	75,750	94,269	136,681
Prairie Provinces—									
Manitoba.....	1,542	1,703	1,610	51,300	53,000	70,000	33,205	40,810	50,400
Saskatchewan.....	4,212	3,381	3,381	99,400	88,000	112,000	61,734	62,900	77,280
Alberta.....	2,654	2,255	2,455	75,000	52,000	72,000	45,962	37,440	49,680
Totals, Prairie Provinces.	8,408	7,339	7,446	225,700	190,000	254,000	140,901	141,150	177,360
British Columbia.....	81	83	89	3,915	4,195	2,703	2,666	3,440	1,946
Totals.....	12,021	11,389	11,575	341,612	317,916	419,930	229,883	251,045	331,015
BARLEY									
Maritimes—									
Prince Edward Island...	11	10	12	324	337	425	331	394	527
Nova Scotia.....	8	8	8	221	234	285	249	295	370
New Brunswick.....	12	15	17	364	435	661	406	552	859
Totals, Maritimes.....	31	33	37	909	1,006	1,371	986	1,241	1,756
Central Canada—									
Quebec.....	137	125	142	3,076	3,000	4,325	3,374	3,750	5,752
Ontario.....	256	228	222	8,193	6,908	8,325	7,867	8,635	10,822
Totals, Central Canada..	393	353	364	11,269	9,908	12,650	11,241	12,385	16,574
Prairie Provinces—									
Manitoba.....	1,795	1,699	1,717	42,900	40,000	55,000	41,416	56,000	62,700
Saskatchewan.....	2,377	1,800	1,954	43,500	33,000	46,000	40,125	42,240	50,600
Alberta.....	2,106	2,118	2,534	45,600	36,000	56,000	42,326	44,640	61,600
Totals, Prairie Provinces.	6,278	5,617	6,205	132,000	109,000	157,000	123,867	142,880	174,900
British Columbia.....	15	14	19	510	494	372	505	618	428
Totals.....	6,717	6,017	6,625	144,688	120,408	171,393	136,599	157,124	193,658
FALL RYE									
Ontario.....	87	106	91	1,810	2,226	1,856	2,964	2,961	2,598
Prairie Provinces—									
Manitoba.....	40	40	69	664	665	1,100	1,132	791	1,441
Saskatchewan.....	496	557	518	4,023	3,000	4,400	7,883	3,600	5,720
Alberta.....	201	170	152	3,026	1,300	1,900	5,704	1,521	2,508
Totals, Prairie Provinces.	737	767	739	7,713	4,965	7,400	14,719	5,912	9,669
Totals.....	824	873	830	9,523	7,191	9,256	17,683	8,873	12,267

**16.—Acreages, Production and Values of Principal Field Crops, by Provinces,
1949 and 1950, with Five-Year Averages, 1945-49—continued**

Province	Area			Total Production			Gross Farm Value		
	Average 1945-49	1949	1950	Average 1945-49	1949	1950	Average 1945-49	1949	1950
	'000 ac.	'000 ac.	'000 ac.	'000 bu.	'000 bu.	'000 bu.	\$'000	\$'000	\$'000
SPRING RYE									
Quebec.....	10	14	14	166	221	261	217	336	428
Prairie Provinces—									
Manitoba.....	10	6	13	141	85	200	253	101	262
Saskatchewan.....	163	133	150	1,638	1,400	1,800	3,078	1,680	2,340
Alberta.....	120	155	160	1,165	1,100	1,800	2,213	1,287	2,376
Totals, Prairie Provinces.	293	294	323	2,944	2,585	3,800	5,544	3,068	4,978
British Columbia.....	1	1	1	21	14	16	38	17	24
Totals.....	304	309	338	3,131	2,820	4,077	5,799	3,421	5,430
ALL RYE									
Central Canada—									
Quebec.....	10	14	14	166	221	261	217	336	428
Ontario.....	87	106	91	1,810	2,226	1,856	2,964	2,961	2,598
Totals, Central Canada..	97	120	105	1,976	2,447	2,117	3,181	3,297	3,026
Prairie Provinces—									
Manitoba.....	50	46	82	805	750	1,300	1,385	892	1,703
Saskatchewan.....	654	690	668	5,661	4,400	6,200	10,961	5,280	8,060
Alberta.....	321	325	312	4,191	2,400	3,700	7,197	2,808	4,884
Totals, Prairie Provinces.	1,025	1,061	1,062	10,657	7,550	11,200	19,543	8,980	14,647
British Columbia.....	1	1	1	21	14	16	38	17	24
Totals.....	1,123	1,182	1,168	12,654	10,011	13,333	22,762	12,294	17,697
PEAS									
Central Canada—									
Quebec.....	19	15	14	261	222	248	982	888	1,084
Ontario.....	31	25	18	552	391	283	1,575	966	849
Totals, Central Canada..	50	40	32	813	613	531	2,557	1,854	1,933
Prairie Provinces—									
Manitoba.....	19	6	6	334	120	116	846	234	238
Saskatchewan.....	6	2	1	91	44	12	242	101	28
Alberta.....	16	6	7	215	85	94	598	298	268
Totals, Prairie Provinces.	41	14	14	640	249	222	1,686	633	534
British Columbia.....	6	4	4	126	74	59	326	166	177
Totals.....	97	58	49	1,579	936	812	4,569	2,653	2,644
BEANS									
New Brunswick.....	1	1	1	19	25	17	81	119	81
Central Canada—									
Quebec.....	12	10	9	183	156	158	760	702	732
Ontario.....	80	81	65	1,326	1,578	1,168	4,900	5,239	5,606
Totals, Central Canada..	92	91	74	1,509	1,734	1,326	5,660	5,941	6,338
British Columbia.....	1	1	1	14	7	7	48	32	34
Totals.....	94	93	76	1,542	1,766	1,350	5,789	6,092	6,453

¹ Less than 500 acres.

**16.—Acreages, Production and Values of Principal Field Crops, by Provinces,
1949 and 1950, with Five-Year Averages, 1945-49—continued**

Province	Area			Total Production			Gross Farm Value		
	Average 1945-49	1949	1950	Average 1945-49	1949	1950	Average 1945-49	1949	1950
	'000 ac.	'000 ac.	'000 ac.	'000 bu.	'000 bu.	'000 bu.	\$'000	\$'000	\$'000
SOYBEANS									
Ontario.....	73	104	142	1,491	2,605	3,323	3,490	5,887	8,474
BUCKWHEAT									
Maritimes—									
Prince Edward Island...	1	1	1	27	23	24	29	29	33
Nova Scotia.....	2	1	1	32	28	17	39	40	25
New Brunswick.....	15	15	15	376	352	474	460	489	635
Totals, Maritimes.....	18	17	17	435	433	515	528	558	693
Central Canada—									
Quebec.....	82	79	75	1,640	1,596	1,916	1,886	1,995	2,663
Ontario.....	121	72	59	2,452	1,509	1,471	2,476	1,826	1,839
Totals, Central Canada..	203	151	134	4,092	3,105	3,387	4,362	3,821	4,502
Manitoba.....	4	2	5	56	32	75	73	43	101
Totals.....	225	170	155	4,583	3,570	3,977	4,963	4,422	5,296
MIXED GRAINS									
Maritimes—									
Prince Edward Island...	61	69	80	2,384	2,850	3,689	2,018	2,793	3,689
Nova Scotia.....	5	6	8	173	239	323	168	249	387
New Brunswick.....	10	10	14	350	374	649	282	340	714
Totals, Maritimes.....	76	85	102	2,907	3,463	4,661	2,468	3,382	4,790
Central Canada—									
Quebec.....	279	312	354	7,282	8,112	12,316	7,247	9,491	16,380
Ontario.....	989	1,211	1,144	38,299	42,748	54,912	31,673	41,466	52,716
Totals, Central Canada..	1,268	1,523	1,498	45,581	50,860	67,228	38,920	50,957	69,096
Prairie Provinces—									
Manitoba.....	20	17	20	518	448	690	352	349	621
Saskatchewan.....	20	6	6	383	121	130	275	92	114
Alberta.....	38	44	43	843	690	1,083	580	511	964
Totals, Prairie Provinces.	78	67	69	1,744	1,259	1,903	1,207	952	1,699
British Columbia.....	8	8	10	319	346	398	264	336	390
Totals.....	1,430	1,683	1,679	50,551	55,928	74,190	42,859	55,627	75,975
FLAXSEED									
Ontario.....	36	16	32	420	196	365	1,698	647	1,259
Prairie Provinces—									
Manitoba.....	443	134	300	4,224	1,100	2,900	16,280	3,652	9,976
Saskatchewan.....	508	132	177	3,197	650	1,000	11,885	2,152	3,550
Alberta.....	145	38	48	1,375	300	400	5,486	990	1,400
Totals, Prairie Provinces.	1,096	304	525	8,796	2,050	4,300	33,651	6,794	14,926
British Columbia.....	3	2	3	37	38	21	140	129	75
Totals.....	1,135	322	560	9,253	2,284	4,686	35,489	7,570	16,260

**16.—Acreages, Production and Values of Principal Field Crops, by Provinces,
1949 and 1950, with Five-Year Averages, 1945-49—continued**

Province	Area			Total Production			Gross Farm Value		
	Average 1945-49	1949	1950	Average 1945-49	1949	1950	Average 1945-49	1949	1950
	'000 ac.	'000 ac.	'000 ac.	'000 lb.	'000 lb.	'000 lb.	\$'000	\$'000	\$'000
SUNFLOWER SEED									
Manitoba.....	29	60	26	16,312	25,500	9,880	952	1,052	477
RAPESEED									
Saskatchewan.....	40	20	1	29,663	17,000	420	1,746	850	16
SHELLED CORN									
Ontario.....	225	250	276	'000 bu. 10,451	'000 bu. 13,100	'000 bu. 13,449	13,364	17,030	21,787
Manitoba.....	13	22	30	304	550	390	330	522	370
Totals.....	238	272	306	10,755	13,650	13,839	13,694	17,552	22,157
POTATOES									
Maritimes—				'000 cwt.	'000 cwt.	'000 cwt.			
Prince Edward Island...	46	50	45	10,220	13,585	11,500	7,931	8,287	4,600
Nova Scotia.....	22	21	22	4,080	4,840	5,208	4,727	4,453	3,646
New Brunswick.....	66	61	60	15,838	18,830	17,131	14,314	11,298	6,852
Totals, Maritimes.....	134	132	127	30,138	37,255	33,839	26,972	24,038	15,098
Central Canada—									
Quebec.....	154	160	161	19,600	21,333	26,200	22,828	20,053	21,222
Ontario.....	116	117	113	16,998	18,720	21,696	21,390	20,966	21,045
Totals, Central Canada..	270	277	274	36,598	40,053	47,896	44,218	41,019	42,267
Prairie Provinces—									
Manitoba.....	25	26	28	2,863	2,947	3,990	2,924	3,477	3,591
Saskatchewan.....	36	33	32	3,075	2,577	3,300	3,862	3,788	3,762
Alberta.....	25	25	28	3,022	2,455	4,245	4,025	4,247	4,967
Totals, Prairie Provinces.	86	84	88	8,960	7,979	11,535	10,811	11,512	12,320
British Columbia.....	17	17	16	3,586	3,910	3,775	5,668	6,686	5,285
Totals.....	507	510	505	79,282	89,197	97,045	87,669	83,255	74,970
FIELD ROOTS									
Maritimes—									
Prince Edward Island...	12	13	13	3,554	3,591	3,535	2,869	4,201	2,757
Nova Scotia.....	10	9	9	2,563	2,402	2,820	3,055	3,123	3,243
New Brunswick.....	11	9	9	2,264	1,869	1,800	1,880	2,243	1,872
Totals, Maritimes.....	33	31	31	8,381	7,862	8,155	7,804	9,567	7,872
Central Canada—									
Quebec.....	25	24	26	4,072	3,982	4,826	4,842	4,978	4,585
Ontario.....	55	49	44	10,233	7,418	9,789	8,253	8,753	8,810
Totals, Central Canada..	80	73	70	14,305	11,400	14,615	13,095	13,731	13,395
British Columbia.....	2	2	2	372	320	323	583	640	614
Totals.....	115	106	103	23,058	19,582	23,093	21,482	23,938	21,881

**16.—Acreages, Production and Values of Principal Field Crops, by Provinces,
1949 and 1950, with Five-Year Averages, 1945-49—continued**

Province	Area			Total Production			Gross Farm Value		
	Average 1945-49	1949	1950	Average 1945-49	1949	1950	Average 1945-49	1949	1950
	'000 ac.	'000 ac.	'000 ac.	'000 tons	'000 tons	'000 tons	\$'000	\$'000	\$'000
HAY AND CLOVER									
Maritimes—									
Prince Edward Island...	226	225	226	340	450	294	4,734	5,850	3,896
Nova Scotia.....	418	391	386	726	704	714	12,240	11,616	12,852
New Brunswick.....	640	628	620	897	816	620	14,198	11,832	10,230
Totals, Maritimes.....	1,284	1,244	1,232	1,963	1,970	1,628	31,172	29,298	26,978
Central Canada—									
Quebec.....	4,082	3,921	3,727	5,699	4,705	4,594	90,370	102,098	91,880
Ontario.....	3,060	2,951	2,836	5,391	3,689	4,509	75,559	78,022	81,162
Totals, Central Canada..	7,142	6,872	6,563	11,090	8,394	9,103	165,929	180,120	173,042
Prairie Provinces—									
Manitoba.....	274	227	303	442	340	591	4,203	4,148	7,092
Saskatchewan.....	317	283	277	426	331	463	5,149	4,634	5,556
Alberta.....	671	665	664	901	665	730	11,841	10,640	11,680
Totals, Prairie Provinces.	1,262	1,175	1,244	1,769	1,336	1,784	21,193	19,422	24,328
British Columbia.....	223	211	215	475	422	398	9,987	8,904	9,552
Totals.....	9,911	9,502	9,254	15,297	12,122	12,913	238,281	237,744	233,900
ALFALFA									
Central Canada—									
Quebec.....	81	106	105	167	191	204	3,050	4,641	4,488
Ontario.....	717	802	794	1,667	1,428	1,771	25,290	31,973	34,889
Totals, Central Canada..	798	908	899	1,834	1,619	1,975	28,340	36,614	39,377
Prairie Provinces—									
Manitoba.....	119	94	112	265	188	280	3,239	2,980	4,480
Saskatchewan.....	122	149	158	196	218	324	3,080	3,782	5,346
Alberta.....	236	243	281	430	316	422	6,551	6,004	8,440
Totals, Prairie Provinces.	477	486	551	891	722	1,026	12,870	12,766	18,266
British Columbia.....	83	95	97	234	261	232	4,983	5,651	6,032
Totals.....	1,358	1,489	1,547	2,959	2,602	3,233	46,193	55,031	63,675
FODDER CORN									
Maritimes—									
Prince Edward Island...	1	1	1	10	10	11	71	80	116
Nova Scotia.....	1	1	1	9	10	12	52	62	75
New Brunswick.....	2	1	2	17	14	16	104	84	96
Totals, Maritimes.....	4	3	4	36	34	39	227	226	287
Central Canada—									
Quebec.....	101	117	144	865	1,108	1,393	6,000	8,864	9,333
Ontario.....	369	418	452	3,360	4,180	4,837	15,691	24,244	23,846
Totals, Central Canada..	470	535	596	4,225	5,288	6,230	21,691	33,108	33,179

**16.—Acreages, Production and Values of Principal Field Crops, by Provinces,
1949 and 1950, with Five-Year Averages, 1945-49—concluded**

Province	Area			Total Production			Gross Farm Value		
	Average 1945-49	1949	1950	Average 1945-49	1949	1950	Average 1945-49	1949	1950
	'000 ac.	'000 ac.	'000 ac.	'000 tons	'000 tons	'000 tons	\$'000	\$'000	\$'000
FODDER CORN—concluded									
Prairie Provinces—									
Manitoba.....	21	20	19	73	96	95	528	768	760
Saskatchewan.....	6	4	5	15	9	11	146	124	121
Alberta.....	2	1	1	10	3	10	59	21	75
Totals, Prairie Provinces.	29	25	25	98	108	116	733	913	956
British Columbia.....	4	4	3	42	46	36	310	368	324
Totals.....	507	567	628	4,401	5,476	6,421	22,961	34,615	34,746
GRAIN HAY									
Alberta.....	826	700	770	1,118	840	1,024	8,779	10,080	12,800
British Columbia.....	39	40	44	75	74	85	1,111	1,221	1,700
Totals.....	865	740	814	1,193	914	1,109	9,890	11,301	14,500
SUGAR BEETS									
Central Canada—									
Quebec.....	3	6	12	27	69	147	344	892	1,911
Ontario.....	22	30	34	218	335	386	2,950	4,565	6,010
Totals, Central Canada..	25	36	46	245	404	533	3,294	5,457	7,921
Manitoba.....	11	16	20	90	127	150	1,111	1,817	2,325
Alberta.....	30	32	36	354	328	445	4,672	4,476	8,213
Totals.....	66	84	102	689	859	1,128	9,077	11,750	18,459

17.—Acreages and Production of Grain in the Prairie Provinces, 1949 and 1950

NOTE.—Figures for years prior to 1949 will be found in corresponding tables of previous editions of the Year Book.

Grain	Acreages		Production	
	1949	1950	1949	1950
	'000 acres	'000 acres	'000 bu.	'000 bu.
Wheat.....	26,490	25,836	337,000	427,000
Oats.....	7,339	7,446	190,000	254,000
Barley.....	5,617	6,205	109,000	157,000
Rye.....	1,061	1,062	7,550	11,208
Flaxseed.....	304	525	2,050	4,300

Stocks of Grain in Canada.—Table 18 shows the stocks of Canadian grain on hand on July 31 for the years 1945-51, with averages for the five-year periods 1935-39 and 1940-44, in both Canada and the United States, also the amounts held on farms in Canada. Farm stocks are given for Canada and the Prairie Provinces separately, while an additional column indicates the amounts held in country elevators in the Prairie Provinces.

18.—Carryover of Canadian Grain as at July 31, 1945-51, with Five-Year Averages, 1935-39 and 1940-44

NOTE.—Figures for individual years prior to 1945 will be found in corresponding tables of previous editions of the Year Book.

Year ended July 31—	Total in Canada and United States	Total in Canada	In Commercial Storage in Canada	On Farms in Canada	Prairie Provinces	
	bu.	bu.	bu.	bu.	On Farms	In Country Elevators
WHEAT						
Av. 1935-39.....	101,142,053	92,273,005	86,848,305	5,424,700	4,328,000	18,075,723
Av. 1940-44.....	431,102,442	408,734,141	351,581,341	57,152,800	54,960,000	154,370,863
1945.....	258,072,830	238,480,041	209,830,041	28,650,000	27,000,000	62,050,936
1946.....	73,600,209	73,466,209	46,263,209	27,203,000	25,841,000	14,341,575
1947.....	86,141,289	86,054,623	60,066,623	25,988,000	24,487,000	17,134,906
1948.....	77,710,410	77,675,758	38,513,758	39,162,000	38,000,000	14,402,528
1949.....	102,411,241	102,342,747	58,919,747	43,423,000	41,000,000	15,563,944
1950.....	112,199,543	112,199,543	99,810,543	12,389,000	11,000,000	24,054,149
1951P.....	189,202,667	187,189,563	164,929,563	22,260,000	20,000,000	78,529,616
OATS						
Av. 1935-39.....	30,700,483	30,682,283	6,229,883	24,452,400	12,585,600	1,361,855
Av. 1940-44.....	74,984,299	74,212,213	16,435,613	57,776,600	43,826,600	6,500,924
1945.....	98,255,162	94,749,878	29,924,878	64,825,000	54,500,000	5,460,089
1946.....	77,491,528	77,491,528	26,404,528	51,087,000	40,902,000	7,631,949
1947.....	69,483,926	69,392,926	16,826,926	52,566,000	39,812,000	5,712,431
1948.....	47,891,059	47,065,974	9,472,974	37,593,000	32,000,000	2,317,843
1949.....	60,506,604	60,506,604	12,143,604	48,363,000	38,000,000	4,334,163
1950.....	44,904,579	44,904,579	11,325,579	33,579,000	26,000,000	3,483,376
1951P.....	95,177,487	94,526,622	35,045,622	59,481,000	43,000,000	14,922,787
BARLEY						
Av. 1935-39.....	8,096,869	7,827,168	4,182,808	3,644,360	2,500,800	711,449
Av. 1940-44.....	29,922,222	28,868,755	12,191,755	16,677,000	15,453,000	4,138,057
1945.....	28,919,181	28,253,191	10,434,191	17,819,000	17,000,000	4,258,071
1946.....	29,937,099	29,832,559	15,948,559	13,884,000	13,250,000	5,996,031
1947.....	28,764,387	28,764,387	12,272,387	16,492,000	15,453,000	5,319,955
1948.....	31,449,460	31,153,555	13,780,555	17,373,000	17,000,000	2,220,313
1949.....	29,669,143	29,556,799	11,074,799	18,482,000	18,000,000	3,216,933
1950.....	20,355,035	20,188,842	8,864,842	11,324,000	11,000,000	2,777,584
1951P.....	53,496,371	53,496,371	35,642,371	17,854,000	17,000,000	11,584,103
RYE						
Av. 1935-39.....	2,236,368	1,940,370	1,763,390	176,980	149,000	373,309
Av. 1940-44.....	6,897,205	4,942,647	3,260,247	1,682,400	1,617,800	1,172,857
1945.....	2,023,933	2,023,933	1,518,933	505,000	465,000	123,595
1946.....	768,149	768,149	515,149	253,000	215,000	269,878
1947.....	755,163	732,163	452,163	280,000	212,000	132,217
1948.....	903,746	903,746	627,746	276,000	275,000	482,289
1949.....	11,917,893	11,189,867	7,002,867	4,187,000	4,100,000	1,714,200
1950.....	6,431,085	5,307,219	4,176,219	1,131,000	1,100,000	664,768
1951P.....	3,298,681	2,624,988	1,774,988	850,000	800,000	226,523
FLAXSEED						
Av. 1935-39.....	277,016	277,016	271,356	5,660	5,000	64,481
Av. 1940-44.....	1,923,885	1,923,885	1,667,525	256,360	251,700	373,895
1945.....	2,932,111	2,932,111	2,178,111	754,000	750,000	321,182
1946.....	1,649,218	1,649,218	1,006,218	643,000	635,000	66,880
1947.....	796,918	796,918	355,918	441,000	436,000	88,474
1948.....	3,371,226	3,371,226	3,076,226	295,000	295,000	604,432
1949.....	10,692,153	10,692,153	10,501,153	191,000	191,000	122,586
1950.....	4,467,771	4,467,771	4,360,771	107,000	105,000	31,235
1951P.....	1,203,778	1,203,778	997,778	206,000	205,000	113,467

Subsection 4.—Live Stock

The numbers of live stock on farms in the different provinces, as reported at the 1941 and 1951 Censuses, are given in Table 19 and the average value per head of farm live stock is given by provinces in Table 20. The annual estimates for intercensal years, as shown in Tables 19 and 20 of the 1951 Year Book, will be revised on the basis of the 1951 Census figures and will be published in the D.B.S. *Quarterly Bulletin of Agricultural Statistics*.

19.—Live Stock on Farms, by Provinces, at June 1, 1941 and 1951

Province and Item	1941	1951	Province and Item	1941	1951
	No.	No.		No.	No.
Newfoundland—			Manitoba—		
Horses.....	...	2,874	Horses.....	301,763	130,887
Milk cows ¹.....	...	4,062	Milk cows ¹	306,294	218,473
Other cattle.....	...	3,882	Other cattle.....	399,043	452,710
Sheep.....	...	17,519	Sheep.....	246,169	65,481
Swine.....	...	1,712	Swine.....	503,407	337,953
P. E. Island—			Saskatchewan—		
Horses.....	28,045	21,349	Horses.....	800,693	303,853
Milk cows ¹	46,404	38,909	Milk cows ¹	437,674	306,896
Other cattle.....	47,973	59,015	Other cattle.....	803,471	967,953
Sheep.....	44,269	34,386	Sheep.....	330,034	136,136
Swine.....	48,205	72,499	Swine.....	943,711	533,263
Nova Scotia—			Alberta—		
Horses.....	36,172	25,975	Horses.....	649,216	261,133
Milk cows ¹	108,130	78,970	Milk cows ¹	363,626	277,598
Other cattle.....	96,764	87,232	Other cattle.....	978,504	1,285,421
Sheep.....	138,209	95,396	Sheep.....	674,918	330,503
Swine.....	44,303	48,216	Swine.....	1,705,528	930,714
New Brunswick—			British Columbia—		
Horses.....	45,164	31,019	Horses.....	63,048	36,054
Milk cows ¹	114,764	82,362	Milk cows ¹	92,489	82,924
Other cattle.....	92,229	79,535	Other cattle.....	232,967	238,334
Sheep.....	92,556	55,223	Sheep.....	125,931	67,474
Swine.....	68,018	78,393	Swine.....	78,188	49,441
Quebec—			Yukon Territory—		
Horses.....	332,734	232,863	Horses.....	90	5
Milk cows ¹	1,000,795	895,539	Milk cows ¹	21	5
Other cattle.....	756,392	745,301	Other cattle.....	31	10
Sheep.....	526,087	316,418	Sheep.....	—	—
Swine.....	808,017	1,108,306	Swine.....	72	—
Ontario—			Totals—		
Horses.....	531,960	260,627	Horses.....	2,788,885	1,306,639
Milk cows ¹	1,155,819	922,116	Milk cows ¹	3,626,046	2,907,854
Other cattle.....	1,483,639	1,543,759	Other cattle.....	4,891,013	5,463,152
Sheep.....	661,775	360,201	Sheep.....	2,839,948	1,478,737
Swine.....	1,882,012	1,755,490	Swine.....	6,081,461	4,915,987

¹ Cows and heifers, two years or over, kept for milk purposes.

20.—Average Value per Head of Farm Live Stock, by Provinces, 1941 and 1951

Province and Item	1941	1951	Province and Item	1941	1951	Province and Item	1941	1951
	\$	\$		\$	\$		\$	\$
Newfoundland—			P. E. Island—			Nova Scotia—		
Horses.....	216	259	Horses.....	99	88	Horses.....	102	116
All cattle.....	259	350	All cattle.....	28	160	All cattle.....	30	142
Milk cows ¹	350	164	Milk cows ¹	40	226	Milk cows ¹	38	191
Other cattle.....	164	33	Other cattle.....	15	118	Other cattle.....	21	98
Sheep.....	33	52	Sheep.....	5	24	Sheep.....	5	19
Swine.....	52	9	Swine.....	9	45	Swine.....	10	37

For footnote, see end of table.

20.—Average Values per Head of Farm Live Stock, by Provinces, 1941 and 1951—concluded

Province and Item	1941	1951	Province and Item	1941	1951	Province and Item	1941	1951
	\$	\$		\$	\$		\$	\$
New Brunswick—			Manitoba—			British Columbia—		
Horses.....	111	117	Horses.....	54	53	Horses.....	58	79
All cattle.....	25	138	All cattle.....	38	190	All cattle.....	42	181
Milk cows ¹	35	189	Milk cows ¹	52	255	Milk cows ¹	60	231
Other cattle.....	14	87	Other cattle.....	27	159	Other cattle.....	34	164
Sheep.....	5	16	Sheep.....	6	23	Sheep.....	7	26
Swine.....	9	38	Swine.....	8	35	Swine.....	9	42
Quebec—			Saskatchewan—			Yukon Territory—		
Horses.....	112	125	Horses.....	50	42	Horses.....	24	80
All cattle.....	33	152	All cattle.....	35	189	All cattle.....	10	158
Milk cows ¹	47	202	Milk cows ¹	50	258	Milk cows ¹	143	227
Other cattle.....	16	91	Other cattle.....	27	178	Other cattle.....	71	118
Sheep.....	5	21	Sheep.....	5	24	Sheep.....	—	—
Swine.....	9	36	Swine.....	7	32	Swine.....	17	—
Ontario—			Alberta—			Totals—		
Horses.....	86	86	Horses.....	47	44	Horses.....	66	72
All cattle.....	45	219	All cattle.....	39	202	All cattle.....	39	191
Milk cows ¹	62	296	Milk cows ¹	52	272	Milk cows ¹	53	249
Other cattle.....	27	173	Other cattle.....	33	187	Other cattle.....	28	159
Sheep.....	8	34	Sheep.....	6	27	Sheep.....	6	26
Swine.....	10	40	Swine.....	9	39	Swine.....	9	38

¹ Cows and heifers, two years or over, kept for milk purposes.

The Federal Department of Agriculture inspects all live stock in plants designated as inspected establishments under the Meat and Canned Goods Act. A statistical record is kept of these inspections and the figures appear in Table 21. Local wholesale butchering and such slaughtering as are carried out by retail butchers and by farmers for their own use are not included. Actually, the slaughtering and meat-packing industry is concentrated into a comparatively small number of large establishments to facilitate greater efficiency and utilization of products. Thus, the figures of Table 21 are fairly inclusive. The slaughtering and meat-packing industry is dealt with in its proper relation to all other manufacturing enterprises in Chapter XVI. On a gross value basis it normally ranks among the three largest manufacturing industries in Canada but it owes its importance to the value of raw products obtained from the farmer and the rancher rather than to the value added by the manufacturing process.

21.—Live Stock Slaughtered at Inspected Establishments, 1936-51, and by Months, 1951

(Exclusive of Newfoundland)

Year	Cattle	Calves	Sheep	Hogs	Year and Month	Cattle	Calves	Sheep	Hogs
	No.	No.	No.	No.		No.	No.	No.	No.
1936.....	920,229	602,616	830,975	3,562,534	1951—	103,651	29,305	27,379	401,612
1937.....	923,961	702,405	821,758	3,802,141	January....	77,887	25,833	15,978	339,615
1938.....	859,280	676,579	801,679	3,137,203	February....	78,391	44,662	16,630	364,234
1939.....	873,660	679,117	783,828	3,623,645	March.....	93,973	81,783	14,365	362,135
1940.....	890,919	703,918	765,165	5,457,083	April.....	108,933	94,056	7,692	406,962
1941.....	1,003,691	727,829	828,603	6,280,345	May.....	108,865	67,406	9,329	323,322
1942.....	970,415	666,672	825,368	6,196,850	June.....	97,368	52,924	17,636	285,430
1943.....	1,021,054	594,087	889,317	7,168,525	July.....	99,751	47,918	46,142	299,808
1944.....	1,354,121	661,245	959,169	8,766,417	August.....	94,672	39,671	73,051	280,713
1945.....	1,891,024	787,626	1,185,161	5,681,629	September..	116,188	44,841	101,536	459,832
1946.....	1,668,441	752,343	1,213,235	4,252,591	October.....	107,087	35,270	83,444	528,562
1947.....	1,291,759	665,311	900,766	4,452,816	November..	63,023	20,049	25,333	435,782
1948.....	1,489,883	787,410	768,943	4,487,649	December..				
1949.....	1,439,489	766,277	629,673	4,098,609					
1950.....	1,284,683	773,205	521,089	4,405,055	Totals.....	1,149,789	583,718	438,518	4,488,007

Wool.—Wool production in Canada (exclusive of Newfoundland) in 1951 was 9.2 p.c. below that in 1950 and was only 44.1 p.c. of the 1945 peak crop. The 1935-39 average was 16,022,000 lb. and the 1951 production only 8,653,000 lb. The shorn-wool production in 1951 was lower, the result of a decrease in sheep population. Average fleece weight was 7.5 lb. compared with 7.7 lb. in 1950. The 27.4 p.c. reduction in wool pulled from domestic skins was partly accounted for by a decrease in inspected slaughterings of sheep and lambs; an increase in the special processing of skins may also have been a contributing factor.

Exports of wool in 1951 were down by nearly 1,700,000 lb. and imports by over 13,200,000 lb. as compared with 1950. Thus, assuming there was no change in stocks, the domestic disappearance of wool was lower by 14.2 p.c. in 1951 than in 1950.

22.—Estimated Production, Exports, Imports and Apparent Consumption of Wool, 1942-51

NOTE.—All estimates are on a 'greasy' basis. Comparable statistics of production for the years 1920-29 are given at p. 219 of the 1939 Year Book, for 1930-36 at p. 214 of the 1945 edition and for 1937-41 at p. 363 of the 1948-49 edition.

Year	Shorn				Pulled	Total Production	Exports	Imports	Apparent Consumption
	Yield per Fleece	Total Yield Shorn	Price per Pound	Total Value Shorn					
	lb.	'000 lb.	cts.	\$	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
1942.....	7.7	12,867	25.5	3,283,000	3,610	16,477	384	114,428	130,521
1943.....	7.5	13,929	27.0	3,761,000	3,889	17,818	2,316	104,364	119,866
1944.....	7.5	15,128	27.1	4,106,000	4,151	19,279	15,520	52,690	56,449
1945.....	7.6	14,513	27.7	4,015,000	5,113	19,626	11,927	59,506	67,205
1946.....	7.5	11,457	28.0	3,208,000	5,290	16,747	6,409	100,042	110,380
1947.....	7.4	10,176	28.2	2,865,000	3,914	14,090	5,103	79,895	88,882
1948.....	7.2	8,423	28.9	2,437,000	3,492	11,915	4,929	95,181	102,167
1949.....	7.4	7,759	29.4	2,280,000	2,076	9,835	3,920	70,720	76,635
1950.....	7.7	7,904	54.4	4,302,000	1,627	9,531	4,328	82,241	87,444
1951.....	7.5	7,471	73.9	5,627,000	1,182	8,653	2,656	69,012	75,009

Subsection 5.—Dairying

Milk Production.—Milk production in 1951 amounted to 16,391,998,000 lb. a considerable reduction from the high point of 17,628,610,000 lb. reached in 1945. During the five-year period, 1946-51, the milk-utilization pattern changed somewhat. In the later year less milk was used for butter (creamery and dairy) and for the manufacture of cheese. On the other hand, more milk was sold in fluid form and more was used for the production of concentrated milk products and ice cream. The proportion of total milk production used for factory-produced dairy products decreased from 52.3 p.c. in 1946 to 51.1 p.c. in 1951 and the proportion sold in fluid form increased from 25.1 p.c. to 25.8 p.c. Milk used for all purposes on farms (farm-home consumed, manufactured and fed) increased from 22.6 p.c. of the total in 1946 to 23.1 p.c. in 1951.

23.—Production and Utilization of Milk, by Provinces, 1948-51, with Totals for 1944-51

NOTE.—Figures for years prior to 1948 will be found in the corresponding tables of previous editions of the Year Book. Figures for 1949 have been revised since the publication of the 1951 Year Book; those for 1951 are subject to revision.

Province and Year	Used in Manufacture		Milk Otherwise Used			Total Milk Production
	On Farms	In Factories	Fluid Sales	Farm-Home Consumed	Fed on Farms	
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Newfoundland.....	..	..	..	..	..	..
Prince Edward Island..1948	15,288	114,735	21,603	25,340	8,583	185,549
1949	14,198	124,622	21,171	24,130	9,791	193,912
1950	10,192	119,055	22,209	23,630	11,880	186,964
1951	8,950	130,123	22,674	24,170	12,924	198,841
Nova Scotia.....1948	68,551	170,942	127,461	48,000	14,110	429,064
1949	64,058	184,307	128,116	49,150	16,820	442,451
1950	62,839	173,104	132,166	47,330	19,824	435,263
1951	52,553	156,729	138,733	44,610	19,198	411,823
New Brunswick.....1948	124,622	192,912	77,252	58,960	11,530	465,276
1949	99,390	205,008	80,266	58,770	15,540	458,974
1950	88,214	194,526	80,606	60,690	19,530	443,566
1951	98,406	189,875	81,837	56,330	22,200	448,648
Quebec.....1948	234,025	2,754,975	1,286,069	337,000	163,700	4,775,769
1949	191,118	2,795,875	1,303,797	358,200	223,500	4,872,490
1950	200,092	2,639,871	1,336,469	367,900	295,800	4,840,132
1951	240,509	2,743,727	1,366,377	354,900	257,100	4,962,613
Ontario.....1948	233,203	3,118,668	1,552,820	487,900	180,100	5,572,691
1949	173,382	3,235,218	1,569,465	523,200	196,800	5,698,065
1950	137,722	2,971,223	1,585,005	541,800	229,800	5,465,550
1951	133,809	2,918,467	1,603,576	524,600	233,800	5,414,252
Manitoba.....1948	158,192	648,330	190,998	132,200	63,630	1,193,350
1949	140,510	622,669	194,186	129,900	73,160	1,160,425
1950	122,914	571,827	191,247	123,000	93,740	1,102,728
1951	111,808	570,325	189,312	121,600	104,130	1,097,175
Saskatchewan.....1948	375,959	823,505	180,521	285,800	136,700	1,802,485
1949	323,803	775,604	179,658	298,600	123,400	1,701,065
1950	289,759	707,974	181,712	300,800	131,600	1,611,845
1951	277,716	685,492	185,425	278,000	154,600	1,581,233
Alberta.....1948	232,862	846,528	267,812	180,300	145,100	1,672,602
1949	202,388	849,349	279,592	178,000	155,700	1,665,029
1950	162,792	827,929	293,036	188,800	222,900	1,695,457
1951	141,752	770,104	313,085	196,000	232,000	1,652,941
British Columbia.....1948	37,888	212,217	320,381	38,660	24,430	633,576
1949	29,475	227,677	327,502	39,700	26,580	690,934
1950	24,273	238,825	334,577	41,500	28,180	667,355
1951	21,649	209,134	325,859	40,150	27,680	624,472
Totals.....1944	1,286,153	9,916,519	3,912,476	1,717,191	791,699	17,624,038
1945	1,256,709	9,851,624	4,007,858	1,716,296	796,123	17,628,610
1946	1,278,736	8,871,785	4,254,000	1,740,072	810,960	16,955,553
1947	1,327,236	9,210,818	4,162,539	1,722,923	817,272	17,240,788
1948	1,450,590	8,882,812	4,024,917	1,594,160	747,883	16,730,362
1949	1,238,322	9,020,329	4,083,753	1,659,650	841,291	16,843,345
1950	1,085,797	8,444,332	4,157,027	1,695,450	1,053,254	16,448,860
1951	1,087,152	8,373,976	4,226,878	1,640,360	1,063,632	16,391,998

24.—Farm Values of Milk Production, by Provinces, 1948-51, with Totals for 1944-51

NOTE.—Figures for years prior to 1948 will be found in corresponding tables of previous editions of the Year Book. Figures for 1949 have been revised since the publication of the 1951 Year Book; those for 1951 are subject to revision.

Province and Year	Value of Milk Used in Manufacture		Value of Milk Otherwise Used			Value of Total Milk Production ¹
	On Farms	In Factories	Fluid Sales	Farm-Home Consumed	Fed on Farms ¹	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland.....	..	..	..	..	..	..
Prince Edward Island..1948	430	3,018	709	755	597	5,509
1949	371	2,814	742	632	681	5,240
1950	244	2,464	783	565	654	4,710
1951	238	3,048	827	650	742	5,505
Nova Scotia.....1948	1,983	4,620	4,717	1,555	1,045	13,920
1949	1,621	4,272	5,148	1,376	1,156	13,573
1950	1,470	3,750	5,442	1,264	1,245	13,171
1951	1,350	3,914	5,938	1,338	1,176	13,716
New Brunswick.....1948	3,691	5,033	3,032	1,881	1,197	14,834
1949	2,583	4,473	3,142	1,581	1,191	12,970
1950	2,101	3,911	3,215	1,529	1,296	12,052
1951	2,621	4,404	3,546	1,600	1,432	13,603
Quebec.....1948	6,811	73,861	46,985	9,975	10,417	148,049
1949	4,919	64,327	46,978	9,170	11,010	136,404
1950	4,765	57,035	47,741	8,756	11,767	130,064
1951	6,395	69,001	51,230	9,937	13,945	150,508
Ontario.....1948	6,830	83,368	56,554	13,759	9,126	169,637
1949	4,595	71,655	56,751	11,877	8,339	153,217
1950	3,321	62,573	58,207	12,245	8,502	144,848
1951	3,615	73,386	62,972	13,902	10,490	164,365
Manitoba.....1948	4,322	15,725	6,527	3,543	3,838	33,955
1949	3,556	12,845	6,300	3,014	3,700	29,415
1950	2,770	10,741	6,154	2,620	3,733	26,018
1951	2,820	12,663	6,674	3,101	4,907	30,165
Saskatchewan.....1948	9,989	19,934	5,965	7,659	7,000	50,547
1949	7,656	15,867	5,759	6,868	5,871	42,021
1950	6,443	13,007	5,985	6,287	5,381	37,103
1951	6,970	14,961	6,504	6,839	6,501	41,775
Alberta.....1948	6,167	20,610	9,415	4,922	6,772	47,886
1949	4,777	18,074	9,685	4,272	6,436	43,244
1950	3,599	16,228	11,030	4,191	7,354	42,402
1951	3,479	17,657	12,613	5,076	8,433	47,258
British Columbia.....1948	1,032	6,234	12,542	1,121	876	21,805
1949	712	6,072	13,250	1,060	854	21,948
1950	548	6,220	12,972	1,029	867	21,636
1951	555	6,474	14,850	1,120	889	23,888
Totals.....1944	19,770	165,400	98,109	29,008	28,823	341,110
1945	18,915	163,265	102,981	30,680	29,805	345,646
1946	21,306	163,407	118,624	34,513	30,526	368,376
1947	28,217	186,796	131,409	38,393	36,087	420,902
1948	41,255	232,403	146,146	45,170	40,868	506,142
1949	30,790	200,399	147,755	39,850	39,238	455,032
1950	25,261	175,929	151,529	38,486	40,799	432,004
1951	28,043	205,508	165,154	43,563	48,515	490,783

¹ Includes values of skim milk, buttermilk and whey retained on farms.

Butter and Cheese Production.—Total butter production in 1951 amounted to 305,964,000 lb., of which 257,604,000 lb. was creamery butter, 46,400,000 lb. dairy or farm-made butter and 1,960,000 whey butter. This output may be compared with the peak production of 371,000,000 lb. reached in 1941 which was made up of 286,000,000 lb. of creamery butter, 83,000,000 lb. of dairy butter and about

2,000,000 lb. of whey butter. The decline from the 1941 total was not continuous in the intervening years. The total for 1943 was 2,000,000 lb. lower than that for 1941, followed by declines for the next two years to 328,194,000 lb. in 1946, increases for two years to 350,317,000 lb. in 1948 and then decreases again to 1951, the lowest production since 1930. The loss in butter production, however, was more than covered by margarine output which amounted to 105,151,000 lb. in 1951.

Factory cheese production in 1951 was estimated at 90,615,000 lb. a decrease of 12,044,000 lb. or 11.7 p.c. from the 1950 estimate and a 56.3 p.c. decline from the peak production of 117,000,000 lb. reached in 1942. Total cheese production, including factory and farm-made cheese, amounted to 208,218,000 lb. in 1942. The total manufactured in 1951, on the other hand, was the lowest on record. Indeed, judging from early estimates of farm-made cheese production and cheese exports, it is apparent that the 1951 output was the lowest since the mid-1880's. After the peak output was recorded in 1942, production fell to 167,218,000 lb. in 1943 and rose again to 189,000,000 lb. in 1945. However, from 1945 to 1948 factory output was cut approximately in half as a result of the restrictions placed on the importation of cheese into the United Kingdom. Lower creamery butterfat prices in 1949 and the uncertainties resulting from the introduction of margarine in that year induced farmers to sell more of their milk to the cheese factories, but this recovery proved temporary and in the two succeeding years a decline of about 30,000,000 lb. occurred.

25.—Production of Butter and Cheese, by Provinces, 1948-51, with Totals for 1944-51

NOTE.—Figures for years prior to 1948 will be found in corresponding tables of previous editions of the Year Book. Figures for 1949 have been revised since the publication of the 1951 Year Book; those for 1951 are subject to revision.

Province and Year	Butter				Cheese
	Creamery	Dairy	Whey	Total	Factory ¹
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Newfoundland.....	..	..	..	..	..
Prince Edward Island.....	1948 4,472	652	—	5,124	709
	1949 4,852	606	—	5,458	746
	1950 4,626	435	—	5,061	707
	1951 5,012	382	—	5,394	840
Nova Scotia.....	1948 6,053	2,912	—	8,965	—
	1949 6,283	2,734	—	9,017	—
	1950 5,927	2,682	—	8,609	—
	1951 5,077	2,243	—	7,320	—
New Brunswick.....	1948 7,329	5,317	—	12,646	757
	1949 7,674	4,242	—	11,916	873
	1950 7,320	3,765	—	11,085	856
	1951 6,783	4,200	—	10,983	1,303
Quebec.....	1948 96,783	9,974	76	106,833	16,479
	1949 93,623	8,157	259	102,039	27,106
	1950 87,488	8,540	215	96,243	23,379
	1951 92,034	10,265	193	102,492	18,210
Ontario.....	1948 74,727	9,880	1,701	86,308	70,160
	1949 74,597	7,400	2,074	84,071	86,788
	1950 68,699	5,878	1,925	76,502	72,388
	1951 66,892	5,711	1,708	74,311	65,788
Manitoba.....	1948 25,402	6,697	41	32,140	2,569
	1949 24,419	5,997	37	30,453	1,839
	1950 22,522	5,246	30	27,798	1,447
	1951 22,277	4,772	28	27,077	1,457

For footnote, see end of table, p. 426.

**25.—Production of Butter and Cheese, by Provinces, 1948-51, with Totals
for 1944-51—concluded**

Province and Year	Butter				Cheese
	Creamery	Dairy	Whey	Total	Factory ¹
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Saskatchewan.....1948	34,116	15,980	—	50,096	275
1949	31,750	13,820	—	45,570	393
1950	28,972	12,367	—	41,339	373
1951	27,903	11,853	—	39,756	376
Alberta.....1948	32,421	9,834	16	42,271	2,568
1949	31,996	8,638	16	40,650	2,787
1950	31,238	6,948	22	38,208	2,944
1951	28,960	6,050	24	35,034	2,084
British Columbia.....1948	4,326	1,599	9	5,934	431
1949	4,611	1,258	9	5,878	498
1950	4,672	1,036	10	5,718	565
1951	2,666	924	7	3,597	557
Totals.....1944	298,777	54,580	2,656	356,013	181,897
1945	293,811	53,283	2,805	349,899	188,729
1946	271,491	54,225	2,478	328,194	148,884
1947	290,952	56,295	2,225	349,472	124,831
1948	285,629	62,845	1,843	350,317	93,948
1949	279,805	52,852	2,395	335,052	121,030
1950	261,464	46,897	2,202	310,563	102,659
1951	257,604	46,400	1,960	305,964	90,615

¹ Factory-made cheese includes cheddar and other cheese made from whole milk. The latter amounted to 4,923,000 lb. in 1948, 4,115,000 lb. in 1949, 5,005,000 lb. in 1950 and 5,355,000 lb. in 1951, produced principally in Quebec and Ontario.

Production of Concentrated Milk Products.—Products manufactured in concentrated milk plants and creameries equipped with powder manufacturing facilities are classified as whole-milk products and milk by-products. Production of whole-milk products in 1951 increased 16 p.c. over 1950 production while concentrated milk by-products increased by 5 p.c.

26.—Production of Concentrated Milk Products, 1948-51

(Exclusive of Newfoundland)

NOTE.—Figures for 1949 have been revised since the publication of the 1951 Year Book; those for 1951 are subject to revision.

Product	1948	1949	1950	1951
	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Concentrated Whole-Milk Products—				
Evaporated milk.....	250,058	231,306	256,484	293,411
Condensed milk.....	35,102	23,543	14,541	18,818
Whole-milk powder.....	17,728	13,160	15,679	17,444
Miscellaneous whole-milk products.....	4,539	5,020	7,742	12,406
Totals, Concentrated Whole-Milk Products..	307,425	273,029	294,446	342,079
Concentrated Milk By-Products—				
Condensed skim milk.....	4,911	4,279	4,366	4,621
Evaporated skim milk.....	6,278	10,354	12,407	10,994
Skim-milk powder.....	64,021	64,312	53,263	52,735
Condensed buttermilk.....	2,753	3,417	3,020	4,107
Buttermilk powder.....	4,883	5,485	5,006	5,151
Casein.....	4,922	3,538	4,309	6,163
Totals, Concentrated Milk By-Products¹.....	91,762	98,313	87,924	92,445
Grand Totals.....	399,187	371,342	382,370	434,524

¹ Includes lactose.

Ice-Cream Production.—The output of ice cream in Canada in 1951 was higher by 7 p.c. than in 1950; compared with 1941 there was an increase in production amounting to 80 p.c. The per capita disappearance of ice cream in 1951 amounted to 1.8 gal.

27.—Production of Ice Cream, by Provinces, 1948-51

Province	1948	1949	1950	1951	Province	1948	1949	1950	1951
	'000 gal.	'000 gal.	'000 gal.	'000 gal.		'000 gal.	'000 gal.	'000 gal.	'000 gal.
Nfld.....	...	...	...	...	Man.....	1,645	1,650	1,496	1,719
P.E.I.....	144	150	155	185	Sask.....	1,470	1,556	1,383	1,519
N.S.....	1,520	1,538	1,420	1,578	Alta.....	1,891	1,978	1,967	2,076
N.B.....	893	885	749	913	B.C.....	2,492	2,416	2,451	2,892
Que.....	4,902	4,715	4,762	5,227	Totals.....	25,206	24,790	23,822	25,458
Ont.....	10,249	9,902	9,439	9,349					

Domestic Disappearance of Dairy Products.—The estimated consumption of fluid milk and cream, on a milk basis, amounted to 4,450,000,000 pt. in 1951, 10,000,000 pt. higher than the 1950 consumption and 596,000,000 pt. above that of 1942. The average daily consumption per capita was 0.89 pt. in 1951 compared with 0.91 pt., in 1950. The peak daily per capita consumption of 1.01 pt. was reached in 1945 and 1946 when subsidies were in effect.

28.—Estimated Consumption of Milk and Cream (expressed as Milk), by Provinces, 1948-51, with Totals for 1944-51

Province and Year	Estimated Consumption	Daily Per Capita Consumption	Province and Year	Estimated Consumption	Daily Per Capita Consumption
	'000 pt.	pt.		'000 pt.	pt.
Newfoundland.....	..	..	Saskatchewan.....1948	357,290	1.14
Prince Edward Island....1948	35,887	1.05	1949	366,564	1.17
1949	34,624	1.01	1950	369,814	1.16
1950	35,017	1.00	1951 ^p	354,932	1.17
1951 ^p	35,786	1.00			
Nova Scotia.....1948	133,052	0.57	Alberta.....1948	341,146	1.10
1949	134,437	0.57	1949	348,221	1.10
1950	136,071	0.57	1950	366,701	1.12
1951 ^p	138,900	0.59	1951 ^p	387,359	1.13
New Brunswick.....1948	103,794	0.56	British Columbia...1948	270,876	0.68
1949	105,913	0.56	1949	277,036	0.68
1950	107,657	0.57	1950	283,752	0.68
1951 ^p	105,203	0.56	1951 ^p	276,150	0.65
Quebec.....1948	1,228,284	0.89	Totals.....1944	4,281,392	1.01
1949	1,258,049	0.89	1945	4,344,122	1.02
1950	1,290,136	0.89	1946	4,547,637	1.01
1951 ^p	1,302,547	0.88			
Ontario.....1948	1,545,841	0.98	1947	4,465,570	0.97
1949	1,585,721	0.98	1948	4,262,270	0.91
1950	1,611,826	0.98	1949	4,357,279	0.90
1951 ^p	1,612,456	0.96	1950	4,440,128	0.90
Manitoba.....1948	246,100	0.89	1951^p	4,449,948	0.89
1949	246,714	0.87			
1950	239,154	0.82			
1951 ^p	236,615	0.84			

Domestic disappearance of butter (creamery, dairy and whey) was approximately 317,251,000 lb. in 1951, compared with 325,755,000 lb. in 1950 and 336,671,000 lb. in 1943. Per capita figures for these years were 23.25 lb., 24.38 lb. and 23.25 lb., respectively. The per capita consumption of margarine for 1951 and 1950 was 7.44 lb. and 6.76 lb., respectively.

Total cheese consumption was about 65,561,000 lb. in 1951, an average of 4.80 lb. per capita. There was little change from the per capita consumption of the previous year.

The domestic disappearance of concentrated whole-milk products increased from 19.77 lb. per capita in 1950 to 20.58 lb. in 1951, and milk by-products from 6.05 lb. to 6.56 lb. in the same comparison.

Disappearance of all dairy products represented the equivalent of approximately 1,080 lb. of milk per capita in 1951 compared with 1,129 lb. in 1950.

29.—Domestic Disappearance of Dairy Products, 1948-51

(Exclusive of Newfoundland)

Product	1948		1949		1950		1951	
	Disap- pearance	Per Capita	Disap- pearance	Per Capita	Disap- pearance	Per Capita	Disap- pearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
Fluid Milk and Cream—								
Milk.....	4,669,820	364.18	4,788,617	365.49	4,870,295	364.52	4,883,975	357.85
Cream as product.....	178,399	13.91	181,482	13.85	181,759	13.60	178,270	13.06
Cream as milk.....	828,509	64.61	832,273	63.52	857,471	64.18	856,457	62.75
Totals, Milk and Cream.....	5,498,329	428.79	5,620,890	429.01	5,727,766	428.69	5,740,432	420.61
Butter—								
Creamery.....	305,553	23.83	261,186	19.93	276,671	20.71	268,978	19.71
Dairy.....	62,852	4.90	52,854	4.03	46,897	3.51	46,401	3.40
Whey.....	1,748	0.14	2,581	0.20	2,187	0.16	1,872	0.14
Totals, Butter.....	370,153	28.87	316,621	24.17	325,755	24.38	317,251	23.25
Cheese—								
Cheddar.....	45,307	3.53	54,892	4.19	56,833	4.25	55,104	4.04
Other.....	5,847	0.46	6,371	0.49	8,597	0.64	10,457	0.77
Farm-made.....	730	0.06	—	—	—	—	—	—
Totals, Cheese.....	51,884	4.05	61,263	4.68	65,430	4.90	65,561	4.81
Concentrated Whole-Milk Products—								
Evaporated.....	198,431	15.47	197,777	15.10	239,408	17.92	253,394	18.57
Condensed.....	13,309	1.04	9,412	0.72	10,976	0.82	9,989	0.73
Powdered.....	8,983	0.70	8,499	0.65	6,038	0.45	5,040	0.37
Totals, Concentrated Whole-Milk Products ¹	225,255	17.57	220,706	16.85	264,167	19.77	280,827	20.58
Concentrated Milk By- products—								
Evaporated.....	6,063	0.47	10,337	0.79	11,942	0.89	9,729	0.71
Condensed.....	4,550	0.35	4,328	0.33	4,574	0.34	4,426	0.32
Powdered.....	31,898	2.49	37,308	2.85	46,817	3.50	52,691	3.86
Totals, Concentrated Milk By-Products ²	56,279	4.39	70,103	5.35	80,779	6.05	89,475	6.56
All Dairy Products in Terms of Milk—								
Butter.....	9,631,729	673.11	7,357,957	561.59	7,581,199	567.41	7,389,330	541.42
Cheese.....	577,988	45.07	681,411	520.08	726,655	543.86	733,069	537.13
Concentrated.....	548,087	42.74	535,052	40.84	619,011	463.30	655,350	480.18
Grand Totals ³	15,620,377	1,218.15	11,634,228	1,116.95	15,085,158	1,129.04	14,982,764	1,097.80

¹ Includes malted milk, cream powder and standard products of a variable fat content, items that do not appear separately in this table.

² Includes milk by-products items not separately listed i.e., condensed buttermilk, powdered buttermilk, sugar of milk, casein and powdered whey in 1948-49.

³ Includes ice cream and cottage cheese in terms of milk.

Subsection 6.—Poultry and Eggs

The numbers of poultry on farms as reported at the Censuses of 1941 and 1951 are given in Table 30. Estimates for individual years between these censuses are being revised on the basis of 1951 Census data. At the time of preparation of this Chapter, 1951 Census figures were not available on production, utilization and values of farm eggs, and on domestic disappearance of poultry and eggs. Estimates shown in Tables 31 and 32 are subject to revision on the basis of the 1951 Census.

Egg production in 1951 decreased slightly, the effects of fewer birds being offset to some extent by higher production per hen. The price of eggs averaged 50.9 cents per doz. in 1951, about 13 cents higher than in 1949. The per capita disappearance amounted to 23.1 doz. in 1951 compared with 22.0 doz. in 1950.

Farm production of poultry meat in 1951 was 2.7 p.c. above production in 1950.

**30.—Numbers and Values of Poultry on Farms, by Provinces,
as at June 1, 1941 and 1951**

Province and Year	Hens and Chickens	Turkeys	Geese	Ducks	Totals
NUMBERS					
Newfoundland.....1941	...	...	...	...	...
1951	73,714	1,553	548	614	76,429
Prince Edward Island.....1941	807,352	14,683	18,960	10,146	851,141
1951	978,019	16,003	20,348	15,325	1,029,695
Nova Scotia.....1941	1,113,218	14,504	6,136	4,105	1,137,963
1951	1,630,305	30,714	5,257	3,947	1,670,223
New Brunswick.....1941	1,101,921	33,370	8,611	4,194	1,148,096
1951	1,230,565	41,532	6,921	4,866	1,282,884
Quebec.....1941	8,062,991	172,549	46,474	36,113	8,318,127
1951	10,090,003	423,104	13,765	49,527	10,576,399
Ontario.....1941	21,763,568	678,076	295,721	319,247	23,056,612
1951	23,767,391	666,465	139,324	164,961	24,738,141
Manitoba.....1941	5,747,907	601,172	63,633	57,278	6,469,990
1951	6,457,849	311,008	54,943	64,771	6,888,571
Saskatchewan.....1941	9,731,038	991,731	87,382	70,600	10,880,751
1951	8,587,281	399,878	33,923	51,270	9,072,352
Alberta.....1941	7,953,306	655,991	116,120	95,340	8,820,757
1951	8,347,509	395,376	64,716	61,977	8,869,578
British Columbia.....1941	2,713,192	42,493	6,969	24,526	2,787,180
1951	3,452,389	243,401	13,657	20,373	3,729,820
Totals.....1941	58,994,493	3,204,569	650,006	621,549	63,470,617
1951	64,615,025	2,529,034	352,402	437,631	67,934,092

**30.—Numbers and Values of Poultry on Farms, by Provinces,
as at June 1, 1941 and 1951—concluded**

Province and Year	Hens and Chickens	Turkeys	Geese	Ducks	Totals
VALUES					
	\$	\$	\$	\$	\$
Newfoundland.....1941	...	...	...	...	...
1951	202,611	11,652	2,740	1,842	218,845
Prince Edward Island.....1941	395,620	12,195	18,137	5,486	431,438
1951	1,174,695	68,173	64,503	23,601	1,330,972
Nova Scotia.....1941	604,882	16,675	8,263	2,592	632,412
1951	2,291,678	141,284	21,235	8,172	2,462,369
New Brunswick.....1941	609,234	26,176	10,897	2,607	648,914
1951	1,639,008	221,362	23,981	9,585	1,893,936
Quebec.....1941	4,332,593	134,385	46,716	30,794	4,544,488
1951	13,738,383	1,895,498	44,868	90,626	15,769,375
Ontario.....1941	10,011,642	516,319	284,722	150,037	10,962,720
1951	32,865,259	3,512,266	528,030	298,579	37,204,134
Manitoba.....1941	1,778,218	345,498	42,281	22,866	2,188,863
1951	6,303,324	1,247,142	151,093	96,510	7,798,069
Saskatchewan.....1941	2,773,935	547,671	59,839	28,754	3,410,199
1951	6,716,480	1,555,523	90,911	77,417	8,440,331
Alberta.....1941	2,382,689	399,741	79,756	37,703	2,899,889
1951	8,153,343	1,731,744	184,438	94,202	10,163,727
British Columbia.....1941	1,616,404	51,879	9,811	15,579	1,693,673
1951	4,857,596	1,226,742	58,586	36,060	6,178,984
Totals.....1941	24,505,217	2,050,539	560,422	296,418	27,412,596
1951	77,942,377	11,611,386	1,170,385	736,594	91,460,742

**31.—Production, Utilization and Value of Farm Eggs, by Provinces,
1949-51**

NOTE.—Figures subject to revision on the basis of 1951 Census data, not available at time of preparation of this Chapter.

Province and Year	Average Number of Layers	Average Pro- duction Per 100 Layers	Net Eggs Laid ¹	Sold	Used on Farms ²	Value Per Dozen ³	Total Value Sold and Used
	'000	No.	'000 doz.	'000 doz.	'000 doz.	cts.	\$'000
Newfoundland—4							
1951.....	..	..	..	..	..	..	..
Prince Edward Island—							
1949.....	485	14,354	5,607	4,778	800	43.1	2,415
1950.....	477	14,025	5,559	4,762	810	35.5	1,981
1951.....	430	16,063	5,725	4,825	882	47.4	2,705
Nova Scotia—							
1949.....	924	16,198	12,146	8,904	3,216	48.4	5,883
1950.....	914	17,124	12,989	9,732	3,256	45.2	5,866
1951.....	879	19,476	14,200	10,998	3,117	54.8	7,733
New Brunswick—							
1949.....	554	14,942	6,786	4,937	1,850	49.1	3,332
1950.....	541	15,502	6,964	5,034	1,918	44.8	3,117
1951.....	511	16,013	6,776	5,027	1,738	56.1	3,795

For footnotes, see end of table.

31.—Production, Utilization and Values of Farm Eggs, by Provinces, 1949-51—concluded

Province and Year	Average Number of Layers	Average Production Per 100 Layers	Net Eggs Laid ¹	Sold	Used on Farms ²	Value Per Dozen ³	Total Value Sold and Used
	'000	No.	'000 doz.	'000 doz.	'000 doz.	cts.	\$'000
Quebec—							
1949.....	4,510	15,615	56,929	44,220	12,740	46·2	26,295
1950.....	4,123	15,531	52,992	40,805	12,285	41·3	21,921
1951.....	3,671	16,780	50,974	38,730	12,176	55·1	28,047
Ontario—							
1949.....	9,035	15,868	116,972	102,475	14,309	43·4	50,765
1950.....	9,013	16,254	121,334	105,793	15,544	39·5	47,889
1951.....	8,358	16,792	116,036	101,926	13,781	53·0	61,294
Manitoba—							
1949.....	2,266	13,726	24,956	20,211	4,635	37·9	9,459
1950.....	1,980	13,647	22,330	18,201	4,230	31·0	6,960
1951.....	1,677	15,029	20,804	16,959	3,635	44·1	9,091
Saskatchewan—							
1949.....	3,061	12,838	31,930	24,352	7,543	35·1	11,201
1950.....	2,824	12,193	28,433	21,076	7,380	29·9	8,504
1951.....	2,461	13,326	27,031	19,532	7,113	41·6	11,085
Alberta—							
1949.....	3,145	13,537	34,309	26,424	7,834	36·8	12,609
1950.....	3,029	13,065	32,652	24,492	8,151	31·9	10,405
1951.....	2,842	14,345	33,652	25,299	7,969	44·2	14,699
British Columbia—							
1949.....	1,806	16,882	24,853	22,382	2,456	46·5	11,567
1950.....	1,537	17,234	21,920	20,019	1,865	44·7	9,779
1951.....	1,632	19,044	25,703	23,510	1,922	54·4	13,840
Totals—⁴							
1949.....	25,786	14,746	314,488	258,683	55,383	42·5	133,526
1950.....	24,438	15,090	305,173	249,914	55,439	38·2	116,422
1951.....	22,461	16,206	300,901	246,806	52,333	50·9	152,289

¹ Total laid less loss. This figure is not equal to "Sold" and "Used on Farms" because of the carry-over on farms at beginning and end of the year.

² Includes eggs used for hatching.

³ Average value at farms for all purposes.

⁴ Figures for Newfoundland not available prior to the Census of 1951.

32.—Domestic Disappearance of Poultry and Eggs, 1949-51

Type of Poultry and Year	Farm Production	Produced Elsewhere	Total Production	Total Supply	Domestic Disappearance	Per Capita Consumption
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	lb.
Fowl and Chickens—						
1949.....	235,955	20,241	256,196	269,605	233,730 ^r	17·7 ^r
1950.....	223,566	19,112	242,678	263,730	245,135 ^r	18·3
1951.....	269,988	23,271	293,259	297,790	269,066	19·7
Turkeys—						
1949.....	41,029	1,999	43,028	46,889	39,269 ^r	3·0 ^r
1950.....	39,241	2,078	41,319	47,425	41,049 ^r	3·1
1951.....	42,470	2,251	44,721	46,421	39,537	2·9
Geese—						
1949.....	3,879	124	4,003	4,046	3,853	0·3 ^r
1950.....	4,634	155	4,789	4,883	4,633	0·3
1951.....	4,501	137	4,638	4,638	4,375	0·3

32.—Domestic Disappearance of Poultry and Eggs, 1949-51—concluded

Type and Year	Farm Production	Produced Elsewhere	Total Production	Total Supply	Domestic Disappearance	Per Capita Consumption
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	lb.
Ducks—						
1949.....	3,368	117	3,485	3,743	3,578	0·3 ²
1950.....	3,166	93	3,259	3,672	3,468	0·3
1951.....	3,340	139	3,479	3,900	3,586	0·3
Totals, Poultry—¹						
1949.....	284,231	22,481	306,712	324,283	280,435 ²	21·3 ²
1950.....	270,607	21,438	292,045	319,710	294,285 ²	22·0
1951.....	320,299	25,798	346,097	352,749	316,564	23·2
	'000 doz.	'000 doz.	'000 doz.	'000 doz.	'000 doz.	doz.
Totals, Eggs—¹						
1949.....	314,488	29,360	343,848	354,236 ²	304,681 ²	22·3 ³
1950.....	305,173	28,398	333,571	341,459	318,065 ²	23·0 ³
1951.....	300,901	28,618	329,519	342,795	326,519 ²	23·1 ³

¹ Figures for Newfoundland not available prior to the Census of 1951.² Excludes hatching eggs.³ Includes hatching eggs.

Subsection 7.—Fruit

Commercial fruit growing in Canada is confined almost exclusively to rather limited areas in the Provinces of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. In Nova Scotia production is centred mainly in the Annapolis Valley and in New Brunswick it is centred in the St. John River Valley and Westmorland County. The fruit-growing districts of Quebec are the Montreal area, the North Shore area, the Eastern Townships and Quebec City district. In Ontario, fruit is grown in all the counties adjacent to the St. Lawrence River and the Great Lakes as far west as Georgian Bay, the Niagara district being the most productive. In British Columbia, the four well-defined fruit areas are the Okanagan Valley, the Fraser Valley, the Kootenay and Arrow Lakes district and Vancouver Island. The climate elsewhere in Canada is not suitable for commercial tree-fruit culture.

A marketing system has been developed for distributing fresh fruit from the specialized production areas to all parts of the country and a very large proportion of the deciduous fruit consumed in Canada is domestically grown. Considerable quantities of apples, strawberries and blueberries are exported annually. The United States is the most important export market for Canadian fruit, although substantial shipments of apples are ordinarily made to the United Kingdom and to other overseas countries. In most of the producing areas, and particularly in the Annapolis Valley of Nova Scotia, the Niagara Peninsula of Ontario and the Okanagan Valley of British Columbia, fruit-growing is the principal form of agriculture and its prosperity is of paramount importance to the economy of these areas. Apples and small fruits are produced commercially in the four provinces named, but tender tree fruits and commercial vineyards are limited to Ontario and British Columbia.

Canning and processing industries have developed in the fruit-growing districts and, although the importance of the processing market varies with different fruits, it provides a valuable outlet for substantial proportions of most Canadian-grown fruit crops. Some canned fruits are exported.

33.—Estimated Commercial Production and Shipping-Point Values of Fruit, 1946-51 with Five-Year Averages, 1941-45

Kind of Fruit and Year	Quantity	Weight	Value	Average Value per Unit of Quantity	Kind of Fruit and Year	Quantity	Weight	Value	Average Value per Unit of Quantity
	'000 bu.	'000 lb.	\$'000	\$		'000 bu.	'000 lb.	\$'000	\$
Apples—					Cherries—				
Av. 1941-45...	12,417	558,765	15,223	1.23	Av. 1941-45...	290	14,500	1,636	5.64
1946.....	19,282	867,690	27,165	1.41	1946.....	337	16,850	2,113	6.27
1947.....	15,619	702,855	22,840	1.46	1947.....	299	14,950	2,128	7.12
1948.....	13,404	603,180	22,631	1.69	1948.....	392	19,600	2,863	7.30
1949.....	18,151	816,795	19,684	1.08	1949.....	491	24,550	3,436	7.00
1950.....	16,166	727,470	19,493	1.21	1950.....	359	17,950	2,168	6.04
1951.....	13,724	617,580	19,379	1.41	1951.....	428	21,400	2,488	5.81
Pears—					Strawberries—				
Av. 1941-45...	723	36,150	1,523	2.11	Av. 1941-45...	17,158	21,448	2,819	0.16
1946.....	951	47,550	2,278	2.40	1946.....	17,412	21,765	4,498	0.26
1947.....	966	48,300	2,178	2.25	1947.....	25,659	32,074	5,404	0.21
1948.....	789	39,450	2,185	2.77	1948.....	32,950	41,188	6,821	0.21
1949.....	1,058	52,900	2,436	2.30	1949.....	26,251	32,814	5,662	0.22
1950.....	864	43,200	2,136	2.47	1950.....	27,121	33,901	6,885	0.25
1951.....	1,190	59,500	3,057	2.57	1951.....	25,809	31,636	5,579	0.22
Plums and Prunes—					Raspberries—				
Av. 1941-45...	460	23,000	1,067	2.32	Av. 1941-45...	10,197	12,746	2,271	0.22
1946.....	811	40,550	1,755	2.16	1946.....	13,240	16,550	3,364	0.25
1947.....	779	38,950	1,472	1.89	1947.....	18,212	22,765	4,354	0.24
1948.....	671	33,550	1,889	2.82	1948.....	15,657	19,571	3,279	0.21
1949.....	827	41,350	1,387	1.68	1949.....	10,931	13,664	2,614	0.24
1950.....	600	30,000	1,278	2.13	1950.....	11,964	14,955	2,967	0.25
1951.....	673	33,650	1,428	2.12	1951.....	12,829	16,036	3,014	0.23
Peaches—					Loganberries—				
Av. 1941-45...	1,496	74,800	3,495	2.34	Av. 1941-45...	1,677	1,677	159	0.09
1946.....	2,145	107,250	5,356	2.50	1946.....	1,637	1,637	222	0.14
1947.....	1,681	84,050	4,128	2.46	1947.....	1,413	1,413	213	0.15
1948.....	1,760	88,000	4,953	2.81	1948.....	2,261	2,261	340	0.15
1949.....	2,011	100,550	4,987	2.48	1949.....	877	877	124	0.14
1950.....	1,222	61,100	2,822	2.31	1950.....	1,197	1,197	177	0.15
1951.....	1,766	88,300	4,699	2.66	1951.....	887	887	142	0.16
Apricots—					Grapes—				
Av. 1941-45...	86	4,300	258	3.00	Av. 1941-45...	60,540	60,540	1,954	0.03
1946.....	147	7,350	446	3.03	1946.....	67,321	67,321	3,160	0.05
1947.....	116	5,800	327	2.82	1947.....	73,803	73,803	3,568	0.05
1948.....	152	7,600	629	4.14	1948.....	57,623	57,623	2,559	0.04
1949.....	181	9,050	810	4.48	1949.....	51,194	51,194	2,012	0.04
1950.....	18	900	93	5.17	1950.....	109,189	109,189	3,543	0.03
1951.....	49	2,450	185	3.78	1951.....	88,303	88,303	2,801	0.03

34.—Values and Weights of Commercial Fruit Produced, by Provinces, 1946-51, with Five-Year Averages, 1941-45

Value, Weights and Year	Nova Scotia	New Brunswick	Quebec	Ontario	British Columbia	Total
	lb.	lb.	lb.	lb.	lb.	lb.
Values—						
Av. 1941-45...	3,450,000	485,000	1,782,000	9,891,000	14,797,000	30,405,000
1946.....	5,901,000	666,000	2,022,000	14,656,000	27,132,000	50,357,000
1947.....	2,851,000	631,000	3,548,000	14,182,000	25,400,000	46,612,000
1948.....	2,151,000	765,000	3,605,000	15,018,000	26,610,000	48,149,000
1949.....	2,515,000	584,000	4,108,000	12,645,000	23,300,000	43,152,000
1950.....	1,773,000	570,000	3,822,000	14,305,000	21,087,000	41,562,000
1951.....	1,489,000	551,000	5,122,000	14,547,000	21,063,000	42,772,000
Weights—						
Av. 1941-45...	170,000,000	12,599,000	40,835,000	238,790,000	345,692,000	807,916,000
1946.....	273,916,000	15,956,000	48,862,000	281,854,000	573,925,000	1,194,513,000
1947.....	166,258,000	16,805,000	63,100,000	298,854,000	479,943,000	1,024,960,000
1948.....	105,551,000	16,056,000	60,775,000	267,468,000	462,173,000	912,023,000
1949.....	170,507,000	18,119,000	99,750,000	331,894,000	523,473,000	1,143,743,000
1950.....	103,955,000	17,450,000	91,148,000	360,669,000	466,641,000	1,039,863,000
1951.....	76,728,000	17,331,000	148,719,000	393,179,000	323,786,000	959,743,000

Subsection 8.—Special Crops

Tobacco.—The chief tobacco-growing area is located in southern Ontario in the counties adjacent to Lake Erie. Most of the cigarette tobacco comes from this district. In 1950, 87,330 acres of flue-cured or Bright Virginia type tobacco and 4,652 acres of Burley tobacco were harvested. These are the most important types grown, though dark air-cured and fire-cured tobacco as well as cigar tobacco are grown on a more limited scale. The only other important production comes from Quebec. In 1950, 4,630 acres of flue-cured tobacco, 3,212 acres of cigar tobacco and 1,321 acres of pipe tobacco were harvested in that Province.

A study of Department of National Revenue reports of tax-paid withdrawals of tobacco products reveals changes in the smoking habits of Canadians during the past three decades. In 1922, the first year for which comparable figures are available, the Canadian per capita consumption of cigarettes was 229, cigars 20, cut tobacco 1.26 lb., plug tobacco 1.14 lb. and snuff about 1.25 oz. By 1951, the annual per capita consumption of cigarettes had increased to 1,118, cigars had dropped to 12.1, cut tobacco went up to 1.95 lb. and plug declined considerably.

35.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, 1946-50, with Five-Year Averages, 1941-45

NOTE.—Figures for years prior to 1946 will be found in the corresponding tables of previous editions of the Year Book.

Year	Harvested Area	Average Yield per Acre	Total Production	Average Farm Price per lb.	Gross Farm Value
	acres	lb.	lb.	cts.	\$
Av. 1941-45.....	80,440	1,121	90,149,000	27.1	24,429,000
1946.....	110,358	1,281	141,384,000	35.0	49,472,000
1947.....	125,267	852	106,688,000	35.1	37,460,000
1948.....	110,590	1,145	126,629,000	39.7	50,272,000
1949.....	109,053	1,282	139,820,000	39.7	55,453,000
1950.....	101,839	1,182	120,298,000	42.6	51,292,000

36.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Provinces, 1946-50, with Five-Year Averages, 1941-45

NOTE.—Figures for the years 1934-38 will be found at p. 229 of the 1939 Year Book and for the years 1939-45 at p. 387 of the 1948-49 edition.

Year	Quebec			Ontario			British Columbia		
	Harvested Area	Production	Value	Harvested Area	Production	Value	Harvested Area	Production	Value
	acres	'000 lb.	\$	acres	'000 lb.	\$	acres	'000 lb.	\$
Av. 1941-45...	9,916	8,763	1,872,000	70,224	81,045	22,483,000	300	341	74,000
1946.....	11,821	11,695	3,383,000	98,386	129,519	46,034,000	151	170	55,000
1947.....	11,918	8,940	2,313,000	113,231	97,627	35,116,000	118	121	31,000
1948.....	12,932	13,753	3,977,000	97,634	112,857	46,287,000	24	19	8,000
1949.....	9,790	8,016	1,992,000	99,182	131,717	53,432,000	81	87	29,000
1950.....	9,163	9,556	2,732,000	92,556	110,610	48,505,000	120	132	55,000

37.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Main Types, 1946-50, with Five-Year Averages, 1941-45

NOTE.—Figures for years prior to 1946 will be found in corresponding tables of previous editions of the Year Book.

Type of Tobacco and Year	Harvested Area	Average Yield per Acre	Total Production	Average Farm Price per lb.	Gross Farm Value
	acres	lb.	lb.	cts.	\$
Flue-cured.....Av. 1941-45	66,073	1,114	73,581,000	28·9	21,264,000
1946	91,432	1,302	119,027,000	36·6	43,554,000
1947	103,694	838	86,863,000	37·1	32,210,000
1948	90,874	1,127	102,442,000	42·5	43,546,000
1949	90,733	1,286	116,668,000	42·1	49,099,000
1950	92,080	1,175	108,202,000	44·5	48,144,000
Burley.....Av. 1941-45	8,064	1,223	9,866,000	20·4	2,012,000
1946	10,478	1,151	12,058,000	27·0	3,260,000
1947	13,200	958	12,640,000	25·6	3,613,000
1948	10,706	1,199	12,841,000	30·5	3,917,000
1949	11,385	1,357	15,452,000	30·5	4,708,000
1950	4,652	1,217	5,660,000	30·0	1,700,000
Cigar leaf.....Av. 1941-45	3,151	1,068	3,366,000	16·3	548,000
1946	4,165	1,305	5,435,000	25·8	1,405,000
1947	4,238	880	3,729,000	22·6	844,000
1948	6,463	1,300	8,402,000	25·2	2,114,000
1949	3,590	1,032	3,706,000	22·5	834,000
1950	3,212	1,300	4,175,000	22·0	919,000

Sugar Beets and Beetroot Sugar.—In 1950 the Canadian sugar-beet crop exceeded 1,000,000 tons for the first time. Sugar beets are grown commercially in Quebec, Ontario, Manitoba and Alberta, and seven beet-sugar factories are located in these Provinces. In Quebec, commercial production, which centres in the St. Hilaire area of the Eastern Townships, started in 1944. In 1950, about 147,000 tons were harvested from 12,000 acres. The sugar-beet industry of Ontario is largely confined to the southwestern section of the Province and factories are located at Wallaceburg and Chatham. The wartime reduction in acreage, caused by labour shortage and competition from other crops, has been overcome and in 1950 Ontario factories processed about 386,000 tons harvested from over 34,000 acres.

Processing of sugar beets in Manitoba began in 1940 when 95,000 tons were handled. In 1950 the factory processed 150,000 tons from 20,000 harvested acres. In Alberta, where the industry has shown steady growth, sugar beets are produced under irrigation with yields averaging above those received in the other provinces. In 1950 the three Alberta factories, located in the south of the Province at Raymond, Picture Butte and Taber, handled 445,000 tons of beets from a harvested area of over 36,000 acres. Twenty-five years earlier the Alberta crop amounted to only 41,000 tons from about 5,000 acres.

38.—Acreages, Yields and Values of Sugar Beets, and Quantities and Values of Refined Beetroot Sugar Produced, 1946-50, with Five-Year Averages, 1941-45

NOTE.—Figures for years prior to 1946 will be found in corresponding tables of previous editions of the Year Book.

Year	Sugar Beets					Refined Beetroot Sugar Produced		
	Harvested Area	Yield per Acre	Total Yield	Average Price per Ton	Total Value	Quantity	Value	Price per lb.
	acres	tons	tons	\$	\$	lb.	\$	cts.
Av. 1941-45..	59,000	10.46	617,000	9.49	5,858,000	172,674,000	10,540,000	8.6
1946 ^r	67,000	11.05	736,000	12.50	9,196,000	205,780,000	14,023,000	6.8
1947 ^r	58,000	10.37	606,000	14.34	8,686,000	156,263,000	13,209,000	8.5
1948 ^r	60,000	10.48	629,000	14.62	9,202,000	175,641,000	15,664,000	8.9
1949.....	84,000	10.20	859,000	13.68	11,750,000	224,584,000	20,232,000	9.0
1950.....	102,000	11.10	1,128,000	16.23	18,367,000	300,185,000	30,845,000	10.3

Apiculture.—Honey is produced commercially in all provinces of Canada, Ontario being the largest producer. There is a considerable movement of honey particularly from the Prairie Provinces to other parts of Canada and to other countries, although the export trade in this commodity has been sharply reduced in recent years due to strong competition and to import restrictions imposed by many countries.

The 1951 crop was the largest since 1948, in spite of a reduction in the number of bee colonies. The higher-than-average 1951 yield was the result of unusually favourable weather conditions during the summer, particularly in Ontario.

In order to facilitate storage, shipment and uniformity of quality, considerable quantities of Canadian honey are pasteurized. Beekeepers' marketing co-operatives are active in several provinces.

As a matter of interest it is noted that bees are kept in some of the fruit-growing and greenhouse districts of the country chiefly for purposes of pollination.

39.—Beekeepers and Bee Colonies, Production and Values of Honey and Beeswax, 1946-51, with Five-Year Averages, 1941-45

NOTE.—Figures for years prior to 1946 will be found in corresponding tables of previous editions of the Year Book.

Year	Bee-keepers	Bee Colonies	Honey				Beeswax		Value of Honey and Wax
			Average Production per Hive	Total Production	Average Price per lb. to Producers	Total Value	Production	Value	
	No.	No.	lb.	lb.	cts.	\$	lb.	\$	\$
Av. 1941-45	34,900	463,500	73	34,009,000	14.5	4,933,000	568,000	227,000	5,160,000
1946....	43,200	541,800	43	23,185,000	18.0	4,174,000	828,000	168,000	4,307,000
1947....	39,200	588,700	63	37,078,000	25.0	8,161,000	425,000	24,000	9,386,000
1948....	32,100	599,800	79	45,115,000	21.0	9,382,000	660,000	295,000	9,467,000
1949....	25,900	475,400	66	31,481,000	18.0	4,260,000	449,000	188,000	4,386,000
1950....	22,200	430,000	66	28,351,000	15.0	4,282,000	426,000	166,000	4,448,000
1951....	18,900	406,300	101	40,909,000	15.0	6,294,000	590,000	294,000	6,588,000

40.—Honey Production, by Provinces, 1946-51, with Five-Year Averages, 1941-45

NOTE.—Figures for the years prior to 1946 will be found in the corresponding tables of previous editions of the Year Book.

Province	Av.1941-45	1946	1947	1948	1949	1950	1951
	lb.	lb.	lb.	lb.	lb.	lb.	lb.
Newfoundland.....	---	---	---	---	---	---	---
Prince Edward Island.....	34,000	15,000	57,000	64,000	63,000	46,000	71,000
Nova Scotia.....	77,000	65,000	112,000	125,000	103,000	81,000	143,000
New Brunswick.....	174,000	109,000	142,000	200,000	140,000	68,000	151,000
Quebec.....	4,291,000	1,900,000	5,399,000	4,831,000	3,709,000	3,041,000	5,044,000
Ontario.....	14,565,000	5,685,000	12,290,000	15,736,000	9,086,000	8,350,000	20,500,000
Manitoba.....	4,549,000	4,810,000	5,180,000	6,525,000	5,586,000	5,891,000	5,400,000
Saskatchewan.....	4,996,000	3,953,000	6,232,000	6,492,000	6,000,000	4,881,000	3,600,000
Alberta.....	4,110,000	6,192,000	6,507,000	10,254,000	5,830,000	4,851,000	4,500,000
British Columbia.....	1,213,000	456,000	1,159,000	918,000	964,000	1,142,000	1,500,000
Totals.....	34,009,000	23,185,000	37,078,000	45,145,000	31,481,000	28,351,000	40,969,000

Maple Sugar and Syrup.—Maple syrup is produced in the Provinces of Nova Scotia, New Brunswick, Quebec and Ontario. The bulk of the crop comes from the Eastern Townships of Quebec which is famous both in Canada and the United States as the centre of the maple-products industry. Virtually all of the maple products exported are sent to the United States with the larger proportion moving as sugar, although substantial quantities of syrup are also shipped. In 1950-51, 11,300,000 lb. of maple products were exported, representing about 54 p.c. of the total crop. This was the largest volume of maple products to be exported in recent years.

Most of the syrup sold in Canada is marketed in one-gallon cans direct to the consumer from the producer but a considerable amount of both sugar and syrup is sold each year to processing firms.

41.—Estimated Production of Maple Sugar and Maple Syrup, by Provinces, 1946-51, with Five-Year Averages, 1941-45

Province and Year	Maple Sugar			Maple Syrup			Total Value, Sugar and Syrup
	Quantity	Average Price per lb.	Value	Quantity	Average Price per gal.	Value	
	lb.	cts.	\$	gal.	\$	\$	\$
Nova Scotia—							
Av. 1941-45.....	33,000	33.3	11,000	7,000	2.86	20,000	31,000
1946.....	20,000	42.0	8,000	6,000	3.50	21,000	29,000
1947.....	14,000	52.0	7,000	9,000	3.94	35,000	42,000
1948.....	16,000	46.0	7,000	8,000	4.08	33,000	40,000
1949.....	13,000	45.0	6,000	6,000	4.07	24,000	30,000
1950.....	13,000	47.0	6,000	7,000	3.76	26,000	32,000
1951.....	15,000	52.0	8,000	5,000	4.18	21,000	29,000
New Brunswick—							
Av. 1941-45.....	84,000	34.5	29,000	12,000	2.83	34,000	64,000
1946.....	68,000	42.0	29,000	10,000	3.77	38,000	67,000
1947.....	93,000	50.0	46,000	23,000	4.25	98,000	144,000
1948.....	124,000	49.0	61,000	12,000	4.28	51,000	112,000
1949.....	81,000	43.0	35,000	7,000	4.26	30,000	65,000
1950.....	86,000	43.0	37,000	14,000	4.00	56,000	93,000
1951.....	90,000	46.0	41,000	10,000	4.27	43,000	84,000
Quebec—							
Av. 1941-45.....	2,382,000	22.2	528,000	1,805,000	2.31	4,163,000	4,692,000
1946.....	2,448,000	27.0	661,000	1,638,000	2.92	4,788,000	5,444,000
1947.....	3,260,000	37.0	1,206,000	2,831,000	3.48	9,852,000	11,058,000
1948.....	2,187,000	34.0	744,000	1,750,000	3.49	6,108,000	6,852,000
1949.....	1,651,000	36.0	598,000	1,894,000	3.61	6,829,000	7,427,000
1950.....	1,692,000	37.0	626,000	2,273,000	3.44	7,819,000	8,445,000
1951.....	1,500,000	39.0	585,000	1,750,000	3.55	6,212,000	6,797,000

**41.—Estimated Production of Maple Sugar and Maple Syrup, by Provinces, 1946-51,
with Five-Year Averages, 1941-45—concluded**

Province and Year	Maple Sugar			Maple Syrup			Total Value, Sugar and Syrup
	Quantity	Average Price per lb.	Value	Quantity	Average Price per gal.	Value	
	lb.	cts.	\$	gal.	\$	\$	
Ontario—							
Av. 1941-45.....	35,000	28·6	10,000	411,000	2·72	1,119,000	1,130,000
1946.....	7,000	35·0	2,000	235,000	3·15	740,000	742,000
1947.....	67,000	41·0	27,000	717,000	4·00	2,868,000	2,895,000
1948.....	23,000	35·0	8,000	389,000	3·93	1,529,000	1,537,000
1949.....	42,000	40·0	17,000	399,000	3·98	1,587,000	1,604,000
1950.....	33,000	40·0	13,000	507,000	4·05	2,053,000	2,066,000
1951.....	44,000	43·0	19,000	379,000	4·29	1,626,000	1,645,000
Totals—							
Av. 1941-45.....	2,534,000	22·8	579,000	2,236,000	2·39	5,337,000	5,916,000
1946.....	2,543,000	27·5	700,000	1,889,000	2·96	5,582,000	6,282,000
1947.....	3,434,000	37·4	1,286,000	3,580,000	3·59	12,853,000	14,139,000
1948.....	2,350,000	34·9	820,000	2,159,000	3·58	7,721,000	8,541,000
1949.....	1,787,000	36·7	656,000	2,306,000	3·67	8,470,000	9,126,000
1950.....	1,824,000	37·4	682,000	2,801,000	3·55	9,954,000	10,636,000
1951.....	1,649,000	39·6	653,000	2,144,000	3·69	7,902,000	8,555,000

Fibre Flax.—The demand for fibre flax was heavy during the war years when exports increased to many times the pre-war volume. After World War II, however, exports of fibre flax to Canada's principal market, the United Kingdom, dropped sharply and acreage devoted to this crop decreased and in 1950 was at the lowest level since 1931. Flax is now grown commercially only in Ontario and Quebec.

**42.—Acreages, Yields and Values of Flaxseed, Fibre and Tow, 1946-50, with
Five-Year Averages, 1941-45**

NOTE.—Figures for the years prior to 1946 will be found in the corresponding tables of previous editions of the Year Book.

Year	Area	Production			Values			
		Seed	Fibre	Green Tow	Seed	Fibre	Green Tow	Total
	acres	bu.	lb.	tons	\$	\$	\$	\$
Av. 1941-45....	37,499	137,000	7,960,000	822	480,000	2,014,000	43,000	2,537,000
1946.....	15,762	81,000	1,786,000	—	405,000	452,000	—	857,000
1947.....	11,003	50,000	1,852,000	—	300,000	482,000	—	782,000
1948.....	14,116	50,000	3,700,000	—	275,000	1,055,000	—	1,330,000
1949.....	7,518	36,000	1,948,000	29	179,000	350,000	2,000	531,000
1950.....	4,569	25,000	900,000	—	133,000	193,000	—	326,000

Subsection 9.—Prices of Agricultural Produce

During 1951, the monthly index numbers of farm prices of agricultural products were consistently and substantially higher than corresponding figures for 1950. Increasing live-stock prices were largely responsible for the almost uninterrupted

rise in the index from 273·9 in January to 307·2 in July. From this all-time high, the index declined steadily to 276·0 in December, a result mainly of smaller advance payments for grain delivered by western farmers after Aug. 1, 1951, and lowering prices for live stock, poultry and eggs. The annual average for the year at a record high of 287·2 was about 10 p.c. above the previous high of 260·5 reached in 1950.

43.—Average Index Numbers of Farm Prices of Agricultural Products, by Provinces, 1942-51, and by Months, 1950 and 1951

(1935-39=100)

NOTE.—A description of this index, its coverage and the methods used will be found in D.B.S. *Quarterly Bulletin of Agricultural Statistics* for October-December, 1946.

Year and Month	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1942 Averages.....	156·2	144·1	160·4	153·4	147·0	122·2	110·5	121·7	140·4	133·1
1943 Averages.....	190·3	169·1	181·4	172·6	165·0	151·3	139·9	149·9	175·8	157·8
1944 Averages.....	172·7	173·3	171·9	171·7	169·1	173·1	171·4	176·9	179·5	172·4
1945 Averages.....	196·7	180·8	195·3	179·5	174·6	188·4	192·6	196·2	187·8	185·7
1946 Averages.....	194·2	191·1	207·7	196·9	187·9	209·4	217·3	219·9	199·2	204·1
1947 Averages.....	180·1	184·6	199·6	213·7	202·1	225·9	226·1	231·9	207·1	215·8
1948 Averages.....	236·6	214·1	250·4	265·6	255·6	259·6	247·1	262·9	240·2	255·8
1949 Averages.....	204·1	210·5	220·5	261·3	257·8	262·8	248·8	265·6	245·1	255·4 ¹
1950										
January.....	175·9	195·4	201·2	249·1	242·8	260·4	243·8	257·6	224·7	244·8
February.....	174·7	196·7	203·7	250·3	248·7	264·8	246·7	261·9	230·8	248·9
March.....	180·1	199·6	208·7	251·8	252·8	267·9	249·4	266·9	232·9	252·4
April.....	189·9	197·4	209·1	253·4	254·4	272·4	252·1	270·7	231·8	254·7
May.....	176·2	197·2	207·2	252·6	257·6	269·8	252·7	270·9	234·4	255·5
June.....	207·9	205·7	217·7	259·7	268·7	277·4	257·0	280·7	242·3	264·1
July.....	200·7	208·8	229·5	264·5	274·3	280·9	259·5	282·9	249·0	268·1
August.....	217·5	217·2	230·5	265·4	274·6	286·1	268·5	296·5	256·9	274·0
September.....	199·3	208·7	228·3	267·2	275·4	283·7	250·6	289·8	258·5	268·8
October.....	183·3	206·6	225·8	263·8	269·4	274·5	243·9	275·5	255·8	261·3
November.....	172·5	203·1	213·3	268·7	277·1	276·1	243·9	276·5	257·0	264·1
December.....	181·3	204·7	217·7	278·0	280·3	279·0	248·9	281·7	259·2	268·8
1950 Averages.....	188·3	203·4	216·1	260·4	264·7	274·4	251·4	276·0	244·4	260·5 ¹
1951										
January.....	184·6	208·5	220·9	279·4	284·6	283·3	251·9	296·0	254·0	273·9
February.....	199·9	216·7	224·1	291·9	301·4	292·2	258·7	301·7	267·5	284·7
March.....	203·2	220·6	230·3	302·0	313·1	302·2	265·5	309·6	273·0	293·7
April.....	207·5	224·2	227·1	301·2	309·6	299·3	265·1	306·3	273·4	291·6
May.....	207·9	227·2	229·4	302·4	311·0	298·6	265·1	307·7	271·9	292·4
June.....	216·9	227·5	227·2	309·6	320·6	308·3	272·6	316·2	272·6	300·3
July.....	225·4	236·9	238·7	318·8	332·1	310·9	273·5	319·5	292·7	307·2
August.....	244·0	238·5	242·9	310·4	321·5	280·1	235·9	278·8	287·9	284·9
September.....	242·9	244·6	253·6	308·0	319·4	272·5	234·9	276·7	309·8	284·0
October.....	256·8	247·9	267·2	304·8	313·9	264·8	229·9	267·4	310·1	278·9
November.....	312·8	269·2	320·4	307·5	313·9	260·3	223·3	259·2	318·9	278·4
December.....	327·3	270·3	320·4	311·3	309·8	259·8	218·5	255·1	318·0	276·0
1951 Averages.....	235·8	236·0	250·2	303·9	312·6	286·0	249·6	291·2	287·5	287·2 ¹

¹ Exclusive of Newfoundland.

Monthly prices of grain and monthly prices of live stock are shown in D.B.S. *Quarterly Bulletin of Agricultural Statistics*.

44.—Yearly Average Cash Prices per Bushel of Canadian Cereals—Basis, in Store at Fort William and Port Arthur—Crop Years Ended July 31, 1942-51

NOTE.—Statistics for 1926 to 1941 are given in the corresponding tables of previous editions of the Year Book.

Year Ended July 31—	Averages in Cents and Eighthths of a Cent per Bushel				
	Wheat, ¹ No. 1 N.	Oats, ² No. 2 C.W.	Barley, ² No. 2 C.W. —6 Row	Rye, ³ No. 2 C.W.	Flaxseed, ³ No. 1 C.W.
	cts.	cts.	cts.	cts.	cts.
1942.....	76/5	49/1	61/4	60/1	158/14
1943.....	94/4	49/2	64/2	68/4	225 ⁵
1944.....	135	67/3	79/6	115/4	250 ⁵
1945.....	143/6	61/4	87/3	126/2	275 ⁵
1946.....	183/3	61/4	84/6	223/7	275 ⁵
1947.....	183/3	66/2	93/4	287/6	325 ⁵
1948.....	183/3	90	119/7	374/5	550 ⁶
1949.....	183/3	78/1	124/3	140	403/17
1950.....	183/3	90/4	158/7	146	371/6
1951.....	185/4	95/4	147/4	184/5	441/4

¹ Average cash closing price, Winnipeg Grain Exchange to Sept. 27, 1943. Thereafter, initial payments plus additional payments to producers.

² Based on cash closing prices, Winnipeg Grain Exchange. From Aug. 1, 1944, to Oct. 22, 1947, prices of oats and barley remained at or near the government-imposed ceiling prices. From Oct. 23, 1947, to July 31, 1949, open market trading again prevailed. Equalization payments to producers are included for the crop years 1943-44 to 1947-48, inclusive.

³ Average cash closing price, Winnipeg Grain Exchange, except where otherwise noted.

⁴ During March the Canadian Wheat Board assumed control of Canadian flaxseed stocks and the price was held at \$1.64 for remainder of crop year.

⁵ Fixed price to growers.

⁶ \$5 fixed price to growers plus 50 cents participation payment.

⁷ Winnipeg Grain Exchange renewed trading in flaxseed cash and futures on Aug. 16, 1948. The Canadian Wheat Board was authorized to buy all flaxseed offered to it during the 1948-49 crop year on the basis of \$4 per bushel for No. 1 C.W. in store Fort William-Port Arthur.

45.—Yearly Average Prices per 100 lb. of Canadian Live Stock at Principal Markets, 1947-51

NOTE.—Classification of live stock was changed in February 1949 as follows: steers up to 1,050 lb. changed to steers up to 1,000 lb.; steers over 1,050 lb. to steers over 1,000 lb.; lambs, good handy weights to lambs, good; sheep, good handy weights to sheep, good.

Item	Toronto					Montreal				
	1947	1948	1949	1950	1951	1947	1948	1949	1950	1951
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Steers, up to 1,050 lb., good.....	14-28	18-25	20-45	24-74	32-60	14-35	18-57	20-99	26-67	32-75
Steers, up to 1,050 lb., medium.....	13-38	17-76	19-26	23-45	31-51	12-96	17-73	18-75	24-63	31-04
Steers, up to 1,050 lb., common.....	12-21	16-35	17-29	22-06	29-46	10-64	13-90	16-07	20-66	27-18
Steers, over 1,050 lb., good.....	14-63	19-40	21-29	26-72	33-49	14-38	21-14	21-28	26-83	33-00
Steers, over 1,050 lb., medium.....	13-88	19-47	20-51	25-16	32-46	13-08	18-56	19-69	25-30	31-45
Steers, over 1,050 lb., common.....	12-85	19-20	19-26	22-80	31-04	10-68	13-17	17-19	22-15	27-97
Heifers, good.....	13-85	18-32	19-99	24-35	31-85	13-04	18-06	19-58	25-04	31-38
Heifers, medium.....	13-23	17-66	18-84	23-78	30-94	11-73	15-43	16-82	22-64	28-01
Calves, fed, good.....	14-50	19-10	21-71	25-44	32-84	14-35	18-06	21-37	27-33	33-41
Calves, fed, medium.....	13-62	18-63	20-15	23-78	31-19	12-12	16-75	19-30	23-78	31-26
Cows, good.....	11-10	15-18	15-77	20-07	26-95	10-95	14-74	15-64	20-21	26-55
Cows, medium.....	10-18	14-11	14-55	18-59	25-43	9-76	13-06	14-07	17-82	24-51
Bulls, good.....	11-40	16-53	17-76	21-93	29-30	11-32	15-08	16-63	21-44	28-31
Stocker and feeder steers, good.....	12-58	17-17	18-45	26-36	33-65	1	1	1	1	1
Stocker and feeder steers, common.....	11-01	15-78	16-37	23-61	30-99	1	1	1	1	1
Stock cows and heifers, good.....	7-00	12-01	14-98	1	1	1	1	1	1	1
Stock cows and heifers, common.....	8-23	9-50	14-00	16-66	23-92	1	1	1	1	1
Calves, veal, good and choice.....	16-24	23-66	25-51	29-61	36-55	15-41	22-22	24-04	27-11	36-60
Calves, veal, common and medium.....	13-58	19-10	20-89	24-20	31-96	12-65	16-65	20-09	22-28	33-48
Hogs, Grade B-1, dressed.....	22-04	29-96	30-20	28-98	32-85	22-29	30-02	30-30	29-03	32-95
Lambs, good handy weights.....	15-63	22-53	23-75	28-33	33-95	14-83	21-76	22-50	27-86	32-60
Lambs, common, all weights.....	12-05	15-71	18-21	23-97	30-28	10-15	16-26	16-31	22-18	26-88
Sheep, good handy weights.....	8-33	9-33	10-87	14-32	19-77	7-38	8-29	9-40	13-78	19-82

¹ No sales reported.

45.—Yearly Average Prices per 100 lb. of Canadian Live Stock at Principal Markets, 1947-51—concluded

Item	Winnipeg					Edmonton				
	1947	1948	1949	1950	1951	1947	1948	1949	1950	1951
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Steers, up to 1,050 lb., good.....	13.55	18.39	20.06	24.55	31.70	13.01	18.01	19.03	24.30	31.75
Steers, up to 1,050 lb., medium.....	11.79	16.05	17.86	22.37	29.42	11.59	16.06	17.54	23.18	30.18
Steers, up to 1,050 lb., common.....	10.06	14.40	15.58	19.84	26.60	9.01	12.50	14.84	19.96	26.76
Steers, over 1,050 lb., good.....	13.44	18.29	20.01	24.38	31.82	13.26	17.33	19.31	24.39	31.84
Steers, over 1,050 lb., medium.....	11.65	16.46	17.60	22.94	29.40	11.78	15.04	17.78	23.21	30.12
Steers, over 1,050 lb., common.....	10.17	14.44	15.37	20.20	26.65	9.54	14.16	15.41	20.64	27.00
Heifers, good.....	11.96	17.10	17.77	22.43	29.24	11.42	16.58	16.73	21.92	29.94
Heifers, medium.....	10.40	15.01	16.00	20.90	26.82	10.13	13.69	15.19	21.65	27.77
Calves, fed, good.....	13.44	17.64	20.27	24.64	32.03	13.33	16.20	19.01	23.51	31.45
Calves, fed, medium.....	11.96	15.29	18.29	22.35	29.79	11.87	15.79	17.48	21.38	29.46
Cows, good.....	10.11	14.54	14.54	18.91	25.74	9.64	13.97	13.50	18.47	25.51
Cows, medium.....	8.85	13.26	13.04	17.20	23.79	8.41	12.18	12.55	17.15	23.84
Bulls, good.....	10.77	16.10	16.71	21.32	28.24	9.43	14.96	15.35	20.49	27.70
Stocker and feeder steers, good.....	10.95	17.91	17.46	24.56	30.45	10.59	15.80	16.07	24.34	30.60
Stocker and feeder steers, common.....	8.72	13.84	14.75	21.18	27.24	8.89	12.79	13.26	20.34	26.13
Stock cows and heifers, good.....	9.22	14.40	14.23	19.69	26.84	8.76	11.77	12.56	18.88	26.22
Stock cows and heifers, common.....	7.35	11.20	11.96	16.67	23.23	7.22	10.50	11.44	16.22	22.91
Calves, veal, good and choise.....	14.82	21.35	23.71	29.00	35.45	12.72	19.53	19.76	27.24	36.30
Calves, veal, common and medium.....	10.80	14.99	17.56	22.04	28.81	9.78	14.09	15.69	22.74	28.75
Hogs, Grade B-1, dressed.....	20.61	27.94	28.49	27.76	30.85	20.21	27.87	29.86	28.40	32.70
Lambs, good handy weights.....	13.96	20.86	21.89	26.62	32.05	13.01	18.32	20.63	24.06	31.45
Lambs, common, all weights.....	10.05	14.85	16.82	20.64	26.56	9.13	12.73	15.73	20.61	26.87
Sheep, good handy weights.....	6.34	7.11	7.86	10.28	12.53	6.69	8.54	7.63	11.52	15.43

Subsection 10.—Food Consumption

Consumption of Major Foods.—A study of consumption of the major foods was undertaken during World War II, by the Dominion Bureau of Statistics in recognition of the national and international significance of such information. While data on total consumption of certain commodities such as wheat, alcoholic beverages, meats, etc., have been available for a considerable period, it was found necessary to establish a per capita level of consumption of a wide range of products on a comparable basis.

The figures represent available supplies including production and imports, adjusted for change of stocks, exports, marketing losses and industrial uses. All calculations have been made at the retail stage of distribution, except meats for which the figures are worked out at the wholesale stage. The amounts of food actually eaten would be somewhat lower than indicated because of losses and waste occurring after the products reached the hands of the consumer. It should also be pointed out that there are minor discrepancies in certain of the figures since statistics of storage stocks in the hands of retailers and consumers were not available. However, the figures represent the best summary of food consumption data that has been compiled for Canada.

All basic foods have been classified under 13 main commodity groups. Totals for each group have been computed using common denominators for the group, as for example: milk solids (dry weight) in the case of the dairy-products group; fat content in the case of fats and oils; and fresh equivalent in the case of fruits. All foods have been included in their basic form, that is, as flour, fat, sugar, etc., rather than in more highly manufactured forms.

The series in Table 46 represents the official estimates of yearly supplies of food moving into consumption, expressed in pounds per capita, for the years 1935-39 as an average for comparison with the years 1949, 1950 and 1951.

**46.—Per Capita Supplies of Food Moving into Consumption, 1949, 1950 and 1951,
with Averages, 1935-39**

Food	Pounds per Capita per Annum				Percentages of 1935-39 Average		
	1935-39	1949	1950	1951 ^a	1949	1950	1951 ^a
Cereals—							
Flour (including rye flour) ¹ Retail wt.	184.8	149.7	154.9	153.3	81.0	83.8	83.0
Oatmeal and rolled oats..... "	7.3	6.6	6.0	6.3	90.4	82.2	86.3
Pot and pearl barley..... "	0.3	0.3	0.3	0.3	100.0	100.0	100.0
Corn meal and flour..... "	1.4	0.7	0.8	0.8	50.0	57.1	57.1
Buckwheat flour..... "	0.2	0.1	0.1	0.1	50.0	50.0	50.0
Rice..... "	4.3	3.6	4.0	4.8	83.7	93.0	111.6
Breakfast food..... "	7.4	6.5	6.7	7.0	87.8	90.5	94.6
Totals, Cereals..... "	205.7	167.5	172.8	172.6	81.4	84.0	83.9
Potatoes—							
Potatoes, white ² Retail wt.	192.3	208.4	236.1	200.3	108.4	122.8	104.2
Potatoes, sweet..... "	0.6	0.4	0.7	0.7	66.7	116.7	116.7
Totals, Potatoes..... "	192.9	208.8	236.8	201.0	108.2	122.8	104.2
Sugars and Syrups—							
Sugar..... Refined wt.	94.7	99.5	101.1	96.2	105.1	106.8	101.6
Maple sugar..... Retail wt.	1.8	1.1	1.4	1.1	61.1	77.8	61.1
Other..... "	8.2	9.2	8.9	9.1	112.2	108.5	111.0
Totals, Sugars and Syrups..... Sugar content	101.7	106.6	108.3	103.2	104.8	106.5	101.5
Starch..... Retail wt.	2.5	1.6	1.6	1.6	64.0	64.0	64.0
Pulses and Nuts—							
Dry beans..... Retail wt.	3.7	4.2 ³	4.7 ³	5.2 ³	113.5	127.0	140.5
Dry peas..... "	5.7	2.7	2.3	2.2	47.4	40.4	38.6
Peanuts..... Shelled wt.	2.2	2.5	3.2	2.7	113.6	145.5	122.7
Tree nuts..... "	1.1	1.3	1.2	1.1	118.2	109.1	100.0
Cocoa..... Green beans	3.7	3.1	3.4	2.4	83.8	91.9	64.9
Totals, Pulses and Nuts..... Retail wt. incl. shelled wt. of nuts	14.5	12.2	13.0	12.4	84.1	89.7	85.5
Fruit—							
Tomatoes and Citrus Fruit—							
Tomatoes, fresh..... Retail wt.	15.4	17.8	17.9	18.3	115.6	116.2	118.8
Tomato products..... Net wt. canned	10.0	14.1	16.0	15.5	141.0	160.0	155.0
Citrus fruit, fresh..... Retail wt.	25.1	31.9	29.9	34.4	127.1	119.1	137.1
Citrus fruit, canned..... Net wt. canned	0.5	6.8	5.8	6.5	1,360.0	1,160.0	1,300.0
Other Fruit—							
Fresh..... Retail wt.	40.5	52.8	54.7	63.5	130.4	135.1	156.8
Canned..... Net wt. canned	6.3	10.2	11.9	11.3	161.9	188.9	179.4
Dried..... Processed wt.	8.3	6.4	6.6	6.8	77.1	79.5	81.9
Juice..... Net wt. canned	..	2.9	3.2	3.6	—	—	—
Frozen..... Retail wt.	0.2	0.2	0.4	0.3	100.0	200.0	150.0
Totals, Fruit..... Fresh equiv.	138.7	177.7	182.9	199.0	128.1	131.9	143.5
Vegetables—							
Fresh—							
Cabbage and greens..... Retail wt.	16.2	19.5	20.5	19.3	120.4	126.5	119.1
Carrots..... "	15.4	10.7	13.1	13.6	69.5	85.1	88.3
Legumes..... "	6.2	2.6	3.2	4.5	41.9	51.6	72.6
Other..... "	29.8	35.1	39.6	38.9	117.8	132.9	130.5
Canned..... Net wt. canned	10.8	18.0	17.6	18.5	166.7	163.0	171.3
Frozen..... Retail wt.	..	0.5	0.5	0.5	—	—	—
Totals, Vegetables..... Fresh equiv.	78.4	86.4	94.5	95.3	110.2	120.5	121.6

For footnotes, see end of table.

46.—Per Capita Supplies of Food Moving into Consumption, 1949, 1950 and 1951, with Averages, 1935-39—concluded

Food	Pounds per Capita per Annum				Percentages of 1935-39 Average		
	1935-39	1949	1950	1951 ^p	1949	1950	1951 ^p
Oils and Fats—							
Margarine..... Retail wt.	—	5.5	6.8	7.4	—	—	—
Lard..... "	3.9	7.5	8.1	8.1	192.3	207.7	207.7
Shortening..... "	10.6	8.5	9.3	8.2	80.2	87.7	77.4
Salad and cooking oil..... "	1.8	3.0	3.0	2.4	166.7	166.7	133.3
Butter..... "	31.0	23.5	23.5	22.6	75.8	75.8	72.9
Totals, Oils and Fats..... Fat content	41.4	42.4	44.8	42.9	102.4	108.2	103.6
Meat—							
Pork..... Carcass wt.	39.8	59.2	60.8	67.8	148.7	152.8	170.4
Beef..... "	54.7	56.5	50.3	44.1	103.3	92.0	80.6
Veal..... "	10.5	9.1	9.2	7.7	86.7	87.6	73.3
Mutton and lamb..... "	5.6	3.0	2.5	2.6	53.6	44.6	46.4
Offal..... Edible wt.	5.8	5.6	5.6	5.2	96.6	96.6	89.7
Canned..... Net wt. canned	1.4	3.8	4.0	4.9	271.4	285.7	350.0
Totals, Meat..... Carcass wt.	118.3^r	138.5	133.7	133.9	117.1	113.0	113.2
Poultry and Fish—							
Hens and chickens..... Retail wt., dressed	15.6	17.7 ^d	18.3 ^d	19.7 ^d	113.5	117.3	126.3
Other poultry..... "	2.8	3.5 ^d	3.7 ^d	3.5 ^d	125.0	132.1	125.0
Shell fish..... Fresh, edible wt.	0.4	0.4	0.4	0.4	100.0	100.0	100.0
Fish, (other) fresh, frozen							
and cured..... Filleted wt.	8.8	7.8	8.6	8.7	88.6	97.7	98.9
Fish, canned..... Net wt. canned	2.7	4.5	4.6	4.7	166.7	170.4	174.1
Totals, Poultry and Fish Edible wt.	22.4	24.7	26.5	26.9	110.3	117.0	120.1
Eggs..... Fresh egg equiv.	30.7	33.4^d	34.5^d	34.6^d	108.8	112.4	112.7
Milk and Cheese—							
Cheddar cheese..... Retail wt.	3.5	4.1	4.1	3.9	117.1	117.1	111.4
Other cheese..... "	0.2	0.5	0.6	0.7	250.0	300.0	350.0
Cottage cheese..... "	0.2	0.5	0.6	0.7	250.0	300.0	350.0
Evaporated whole milk..... "	6.1	14.7	17.3	18.1	241.0	283.6	296.7
Condensed whole milk..... "	0.6	0.7	0.8	0.7	116.7	133.3	116.7
Whole milk powder..... "	0.1	0.6	0.4	0.4	600.0	400.0	400.0
Condensed skim milk..... "	0.4	0.3	0.3	0.3	75.0	75.0	75.0
Skim milk powder..... "	1.8	2.8	3.4	3.8	155.6	188.9	211.1
Evaporated skim milk..... "	0.1	0.8	0.9	0.7	800.0	900.0	700.0
Condensed buttermilk..... "	0.1	0.2	0.2	0.3	200.0	200.0	300.0
Milk in ice cream..... "	10.9	32.2	30.7	32.7	295.4	281.7	300.0
Powdered buttermilk..... "	0.2	0.4	0.4	0.3	200.0	200.0	150.0
Fluid whole milk ^s "	408.5	425.8 ^d	424.6 ^d	420.6 ^d	104.2	103.9	103.0
Totals, Milk and Cheese..... Milk solids	52.0	63.7	64.5	64.7	122.5	124.0	124.4
Beverages—							
Tea..... Primary							
distribution wt.	3.5	3.2	4.0	3.0	91.4	114.3	85.7
Coffee..... Green beans	3.7	7.3	6.0	6.3	197.3	162.2	170.3
Totals, Beverages..... Primary distribution wt.	7.2	10.5	10.0	9.3	145.8	138.9	129.2

¹ Fluctuations in apparent per capita flour consumption are partly due to the fact that complete data on flour inventories in all positions are not available. ² Includes amounts dumped or fed to live stock for which no data are available. ³ Includes soybean flour. ⁴ Exclusive of Newfoundland.

⁵ Includes cream expressed as milk.

Consumption of Meats.—Production of meats from slaughter, total supply, distribution and per capita consumption of meats and lard are shown in Table 47. All estimates are on a carcass-weight basis except canned meats which are in terms of product.

**47.—Supply, Distribution and Consumption of Meats and Lard, 1948-51,
with Five-Year Averages, 1935-39**

Meats	Average 1935-39	1948	1949	1950	1951
Beef—					
Animals slaughtered in Canada..... '000	1,347.0	1,953.5	1,904.5	1,729.3	1,472.0
Estimated dressed weight ¹ '000 lb.	618,556	891,688	866,844	790,395	712,682
On hand, Jan. 1..... "	22,684	43,154	35,313	23,415	22,174
Imports ² "	158 ³	8	9,335	10,587	10,112
Totals, Supply..... "	641,398	934,850	911,492	824,397	744,968
Exports ² "	10,899	133,822	105,121	90,740	96,605
Used for canning..... "	1,406	25,480	17,415	14,582	11,701
On hand, Dec. 31..... "	24,040	35,313	23,415	22,174	19,370
TOTALS, CONSUMPTION..... "	605,053	740,235	765,541	696,901	617,292
CONSUMPTION PER CAPITA..... lb.	54.7	57.5	56.5	50.3	44.1
Veal—					
Animals slaughtered in Canada..... '000	1,333.6	1,554.1	1,287.1	1,387.4	1,166.3
Estimated dressed weight ¹ '000 lb.	116,372	142,390	124,303	125,958	110,407
On hand, Jan. 1..... "	3,452	6,624	6,894	6,327	3,356
Imports..... "	4	4	4	4	4
Totals, Supply..... "	119,824	149,014	131,197	132,285	113,763
Exports..... "	—	4	4	4	4
Used for canning..... "	22	1,527	1,554	1,605	1,182
On hand, Dec. 31..... "	3,785	6,894	6,327	3,356	4,102
TOTALS, CONSUMPTION..... "	116,017	140,593	123,316	127,324	108,479
CONSUMPTION PER CAPITA..... lb.	10.5	10.9	9.1	9.2	7.7
Pork—					
Animals slaughtered in Canada..... '000	5,165.1	7,441.1	7,169.5	7,650.4	7,961.6
Estimated dressed weight ¹ '000 lb.	620,522	941,406	910,568	963,757	1,005,560
On hand, Jan. 1..... "	34,511	57,585	32,439	35,445	31,292
Imports ² "	7,394	1,562	6,685	5,733	22,456
Totals, Supply..... "	662,427	1,000,553	949,692	1,004,935	1,059,308
Exports ² "	179,630	229,496	76,060	85,099	21,382
Used for canning..... "	4,602	44,661	35,494	46,835	48,754
On hand, Dec. 31..... "	37,863	32,439	35,445	31,292	38,939
TOTALS, CONSUMPTION..... "	440,332	693,957	802,693	841,709	950,233
CONSUMPTION PER CAPITA..... lb.	39.8	53.9	59.2	60.8	67.8
Mutton and Lamb—					
Animals slaughtered in Canada..... '000	1,543.0	1,148.1	1,023.1	855.7	824.8
Estimated dressed weight ¹ '000 lb.	61,417	47,494	43,641	35,691	35,973
On hand, Jan. 1..... "	6,190	9,153	6,346	5,023	3,894
Imports ² "	422	1	29	486	3,499
Totals, Supply..... "	68,029	56,648	50,016	41,200	43,366
Exports ² "	248	5,056	3,906	2,761	2,737
Used for canning..... "	37	379	246	220	205
On hand, Dec. 31..... "	5,965	6,346	5,023	3,894	4,136
TOTALS, CONSUMPTION..... "	61,779	44,867	40,841	34,325	36,288
CONSUMPTION PER CAPITA..... lb.	5.6	3.5	3.0	2.5	2.6
Canned Meats—					
Estimated production..... '000 lb.	5,624	62,774	45,973	53,485	54,545
Imports..... "	12,292	565	11,099	10,969	23,977
Change in stock ³ "	—	-2,014	-3,850	+94	+879
Totals, Supply..... "	17,916	65,353	60,922	64,360	77,643
Exports..... "	1,999	32,390	10,009	8,430	9,258
TOTALS, CONSUMPTION..... "	15,917	32,963	£ 9,913	55,930	68,385
CONSUMPTION PER CAPITA..... lb.	1.4	2.6	3.8	4.0	4.9

For footnotes, see end of table.

**47.—Supply, Distribution and Consumption of Meats and Lard, 1948-51,
with Five-Year Averages, 1935-39—concluded**

Meats and Lard	Average 1935-39	1948	1949	1950	1951
Offal—					
Estimated production.....'000 lb.	64,611	90,083	85,916	84,446	79,739
Imports....."	..	30	729	1,483	4,348
Totals, Supply....."	64,611	90,113	86,645	85,929	84,087
Exports....."	..	6,860	7,270	5,657	7,223
Used for canning....."	583	5,513	3,161	3,258	3,636
TOTALS, CONSUMPTION....."	64,028	77,740	76,214	77,014	73,228
CONSUMPTION PER CAPITA.....lb.	5.8	6.0	5.6	5.6	5.2
Lard—					
Estimated production ⁷.....'000 lb.	63,237	92,085	98,019	109,652	117,874
On hand, Jan. 1....."	2,685	3,267	3,387	4,014	3,385
Imports....."	56	35	14,548	13,031	12,045
Totals, Supply....."	65,978	95,387	115,954	126,697	133,304
Exports....."	19,485	569	208	126	-84
On hand, Dec. 31....."	2,963	3,387	4,014	3,385	5,968
TOTALS, CONSUMPTION....."	43,530	91,431	111,732	123,186	127,252
CONSUMPTION PER CAPITA.....lb.	3.9	7.1	8.2	8.9	9.1

¹ Edible meat excluding offal.² Basis cold dressed carcass weight.³ Includes edible

offal of beef and veal.

⁴ Quantity small; included with beef.⁵ Edible meat excluding fats

and offal.

⁶ The positive changes represent deductions from the available supply during a given

year and therefore are subtracted; similarly, negative changes represent an increase in disappearance.

⁷ Includes rendered pork fat.

Section 5.—International Crop Statistics

Tables 48 and 49 are based on official estimates published in March 1952, by the Office of Foreign Agricultural Relations, United States Department of Agriculture, and give the acreages and production of wheat and the production of oats and barley for the harvests of 1950 and 1951, with averages for the years 1940-44, in the leading countries of the world.

**48.—Estimated Acreages and Production of Wheat Harvested in 1950 and 1951 in
Specified Countries, with Averages, 1940-44**

Continent and Country	Acreages			Production		
	Average 1940-44	1950	1951	Average 1940-44	1950	1951
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
North America—						
Canada.....	22,466	27,021	25,731	422,559	461,664	562,395
Mexico.....	1,394	1,485	1,260	15,624	20,210	13,500
United States.....	54,017	61,610	61,424	925,984	1,019,389	987,474
Totals, North America¹.....	77,930	90,170	88,470	1,365,000	1,502,000	1,564,000
Europe—						
Albania.....	123	..	..	1,381	..	..
Austria.....	545	585	560	11,800	15,000	15,800
Belgium.....	492	429	391	17,820	20,100	18,830
Bulgaria.....	3,330	..	..	53,500	..	..
Czechoslovakia.....	2,175	..	..	50,000	..	..

For footnotes, see end of table, p. 446.

48.—Estimated Acreages and Production of Wheat Harvested in 1950 and 1951 in Specified Countries, with Averages, 1940-44—concluded

Continent and Country	Acreages			Production		
	Average 1940-44	1950	1951	Average 1940-44	1950	1951
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
Europe—concluded						
Denmark.....	151	209	202	6,264	10,950	10,178
Finland.....	322	480	480	6,134	11,200	9,500
France.....	11,300	11,150	10,900	240,000	283,000	265,000
Western Germany.....	..	2,500	2,550	..	96,000	107,500
Greece.....	2,250	2,142	2,357	21,500	31,230	34,200
Hungary.....	4,080	..	..	79,762	..	..
Ireland.....	499	375	290	16,735	12,230	9,500
Italy.....	12,464	12,100	12,125	245,812	285,000	260,000
Luxembourg.....	41	44	42	904	1,200	1,200
Netherlands.....	352	236	200	12,639	12,000	10,500
Norway.....	108	78	60	2,832	2,510	1,800
Portugal.....	..	1,692	1,736	..	19,470	21,830
Roumania.....	5,600	..	..	80,000	..	..
Spain.....	9,300	10,100	10,380	103,000	125,000	175,000
Sweden.....	700	838	810	16,834	27,200	18,000
Switzerland.....	225	216	219	7,929	8,360	8,750
United Kingdom.....	2,655	2,479	2,131	95,656	97,290	82,240
Yugoslavia.....	4,900	..	..	77,000	..	..
Totals, Europe¹	70,020	70,870	71,310	1,350,000	1,525,000	1,580,000
Union of Soviet Socialist Republics (Europe and Asia).....	..	107,000	..	..	1,110,000	..
Asia—						
Iran.....	3,283	..	..	52,880	74,000	66,000
Iraq.....	1,737	1,606	..	14,697	20,000	19,100
Lebanon.....	166	173	161	1,572	2,020	1,650
Syria.....	1,216	2,100	..	16,357	27,560	20,200
Turkey.....	10,214	10,500	12,000	135,747	150,000	200,000
China.....	47,400	53,200	..	782,000	775,000	..
Manchuria.....	1,955	2,400	..	22,923	25,500	..
Indian Union.....	24,227	24,100	24,000	253,600	235,200	246,400
Pakistan.....	10,028	10,715	10,830	131,369	147,800	147,600
Japan.....	2,044	1,882	1,814	52,228	49,180	54,750
Korea.....	801	..	..	10,203	..	..
Total, Asia¹	105,830	113,300	114,610	1,500,000	1,535,000	1,610,000
Africa—						
Algeria.....	3,965	3,820	3,960	29,442	40,500	33,000
Egypt.....	1,693	1,424	1,554	43,973	41,000	45,000
French Morocco.....	3,555	3,150	3,025	25,447	29,000	30,000
Tunisia.....	1,747	1,720	1,500	10,509	17,000	12,120
Union of South Africa.....	2,514	3,660	3,400	15,597	26,050	24,600
Totals, Africa¹	14,710	15,450	15,400	134,000	166,000	158,000
South America—						
Argentina.....	13,776	13,680	7,500	234,585	213,000	85,000
Brazil.....	677	..	..	6,935	15,600	15,800
Chile.....	1,908	2,034	1,968	31,873	36,000	35,000
Peru.....	287	..	..	3,504	..	..
Uruguay.....	945	1,225	1,300	10,161	15,970	16,100
Totals, South America¹	18,250	19,070	13,150	293,000	290,000	165,000
Oceania—						
Australia.....	10,053	11,663	10,434	113,455	184,240	165,380
New Zealand.....	241	140	100	8,199	6,250	4,000
Totals, Oceania¹	10,294	11,803	10,534	121,654	190,490	169,380
World Totals¹	387,830	427,660	428,470	5,740,000	6,320,000	6,500,000

¹ Estimated totals include allowances for any missing data for countries shown and for other producing countries not shown.

49.—Estimated Production of Oats and Barley Harvested in 1950 and 1951 in Specified Countries, with Averages, 1940-44

Continent and Country	Oats			Barley		
	Average 1940-44	1950	1951	Average 1940-44	1950	1951
	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.
North America—						
Canada.....	463,944	419,930	492,683	176,850	171,393	252,795
Mexico.....	1,699	4,075	...	5,171	7,440	...
United States.....	1,212,146	1,410,464	1,316,396	340,464	303,533	254,668
Totals, North America¹..	1,678,000	1,835,000	1,813,000	523,000	482,000	515,000
Europe—						
Austria.....	21,000	16,500	25,150	11,520	11,500	13,800
Belgium.....	27,367	34,900	32,400	6,525	12,000	12,400
Bulgaria.....	8,586	..	..	10,200	..	..
Czechoslovakia.....	75,800	..	..	48,000	..	..
Denmark.....	64,112	57,460	57,110	55,084	74,180	80,280
Finland.....	32,027	51,000	54,000	6,373	9,200	9,500
France.....	225,000	227,690	248,160	42,000	72,200	76,560
Western Germany.....	..	175,000	195,000	..	67,600	77,500
Greece.....	7,025	8,200	9,500	6,640	9,190	10,000
Hungary.....	24,000	..	..	30,000	..	..
Ireland.....	52,535	38,000	40,360	7,417	6,000	8,200
Italy.....	34,400	38,120	35,000	10,200	13,510	12,400
Luxembourg.....	2,572	2,440	2,500	..	..	..
Netherlands.....	18,287	26,300	33,750	5,642	10,700	10,000
Norway.....	11,094	12,390	12,610	4,299	4,890	6,100
Portugal.....	..	8,900	9,500	..	5,920	6,080
Roumania.....	32,400	..	..	24,800	..	..
Spain.....	38,000	38,000	40,000	75,000	78,000	82,500
Sweden.....	58,136	55,800	56,500	8,956	9,650	11,500
Switzerland.....	5,505	3,850	4,340	2,136	2,150	2,160
United Kingdom.....	219,926	188,440	173,800	66,183	79,850	84,233
Yugoslavia.....	19,100	..	..	16,600	..	..
Totals, Europe¹.....	1,465,000	1,355,000	1,430,000	610,000	695,000	750,000
Union of Soviet Socialist Republics (Europe and Asia).....	..	750,000	..	..	325,000	..
Asia—						
Iran.....	..	..	..	33,735	36,740	33,000
Iraq.....	..	..	..	27,100	37,000	36,000
Lebanon.....	..	..	..	1,284	920	..
Syria.....	575	..	..	11,589	9,200	5,000
Turkey.....	18,779	21,740	24,100	85,017	94,020	120,000
China.....	..	..	..	308,200	..	..
Manchuria.....	..	..	..	5,300	..	..
Indian Union.....	..	..	..	90,552	100,470	105,650
Pakistan.....	..	..	..	7,588	7,200	7,500
Japan.....	9,838	9,230	9,650	73,311	80,200	100,000
Korea.....	..	..	..	54,000	..	..
Totals, Asia¹.....	104,000	96,000	103,000	720,000	725,000	775,000
Africa—						
Algeria.....	10,470	10,450	8,910	23,836	38,000	26,000
Egypt.....	..	..	..	11,662	4,500	4,800
French Morocco.....	2,339	3,050	4,550	50,189	50,000	67,000
Tunisia.....	1,390	1,720	1,600	5,695	9,200	3,220
Union of South Africa.....	7,238	..	..	1,946	..	..
Totals, Africa¹.....	22,000	24,000	25,000	107,000	122,000	121,000

¹ Estimated totals include allowances for any missing data for countries shown and for other producing countries not shown.

49.—Estimated Production of Oats and Barley Harvested in 1950 and 1951 in Specified Countries, with Averages, 1940-44—concluded

Continent and Country	Oats			Barley		
	Average 1940-44	1950	1951	Average 1940-44	1950	1951
	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.
South America—						
Argentina.....	49,507	50,500	31,000	24,805	35,040	18,400
Chile.....	5,900	6,030	..	3,453	4,150	4,760
Uruguay.....	2,790	2,400	2,940	693	1,130	900
Totals, South America¹..	59,000	60,000	42,000	39,000	53,000	38,000
Oceania—						
Australia.....	20,179	31,400	38,500	9,590	23,820	24,500
New Zealand.....	3,853	2,700	2,500	1,175	2,100	..
Totals, Oceania.....	24,032	34,100	41,000	10,765	25,920	27,000
World Totals¹.....	4,305,000	4,155,000	4,270,000	2,335,000	2,430,000	2,580,000

¹ Estimated totals include allowances for any missing data for countries shown and for other producing countries not shown.

CHAPTER XI.—FORESTRY*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Land is the basis of the Canadian economy and wise use of the land is the foundation of good forestry. Good forestry will aid in maintaining agricultural lands against drought and erosion; will continuously protect water catchment areas and assure supplies of water; will furnish good cover for game and fur-bearing animals; and will give Canadians and their tourist guests opportunities for recreation which only the forests can provide.

A Special Article dealing with Canada's forest economy appears in the Year Book 1951, pp. 425-437.

Section 1.—Forest Regions†

The forests of Canada cover a vast area in the north temperate climatic zone. Wide variations in physiographic, soil and climatic conditions cause marked differences in the character of the forests in different parts of the country, hence eight fairly well defined forest regions may be recognized. These are the Boreal, Great Lakes-St. Lawrence, Acadian, Deciduous, Subalpine, Columbia, Montane, and Coast Forest Regions, as illustrated on the accompanying map. The relative proportion of the total area of all forest regions occupied by each is as follows:—

Region	Percentage of Total Forested Area	Region	Percentage of Total Forested Area
Boreal.....	80.1	Acadian.....	2.0
Great Lakes-St. Lawrence.....	7.9	Columbia.....	0.9
Subalpine.....	4.0	Deciduous.....	0.4
Montane.....	2.5		
Coast.....	2.2	TOTAL.....	100.0

* Sections of this Chapter that deal with forestry and forest administration have been revised in the Forest Economics Section, Forestry Branch, Department of Resources and Development. Sections dealing with forest utilization and forest industries, except as otherwise noted, have been revised in the Forestry Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

† A more detailed discussion of forest regions is given in the Department of Resources and Development, Forestry Branch, Bulletin No. 89, *A Forest Classification for Canada*, by W. E. D. Halliday. Also see Chapter I for accounts of variations in Canadian physiography, climate, etc.

The Boreal Forest Region.—This forest region, covering the greater part of Canada, stretches unbrokenly from eastern Newfoundland westward to the boundary of Alaska. Along its southern border, it follows the limits of the Great Lakes-St. Lawrence Region and then skirts the grasslands of the Prairies to the foothills of the Rocky Mountains and northwestward into Yukon Territory. The northern limits of tree growth form its boundary to the north. White and black spruce, trembling aspen, balsam, poplar, tamarack, white birch and jack pine comprise the principal trees of the Region.

Within the Region are two sections which are quite distinctive: the Northern Transition and the Aspen Grove Sections. The Northern Transition Section lies between the merchantable forests on the south and the arctic tundra on the north. White and black spruce, tamarack and white birch, stunted in growth, are the characteristic trees. The Aspen Grove Section, lying as a transition zone between the true forest region to the north and the open grasslands to the south, has trembling aspen as its dominant tree species. Bur oak, white elm and green ash are found in certain localities.

The Great Lakes-St. Lawrence Forest Region.—This Region lies south of the Boreal Forest in the eastern part of Canada. It is situated in southwestern Newfoundland and westward from the drainage basin of the Great Lakes-St. Lawrence River System to southeastern Manitoba. Some of the earliest centres of settlement are within the Region and in many portions the forest has been largely cleared and remains now only in woodlots and patches on poor soils. The area is characterized by the occurrence of white pine and yellow birch. A large number of species occur, including red pine, jack pine, white spruce, black spruce, balsam fir, cedar, hemlock, white birch, the maples and elms.

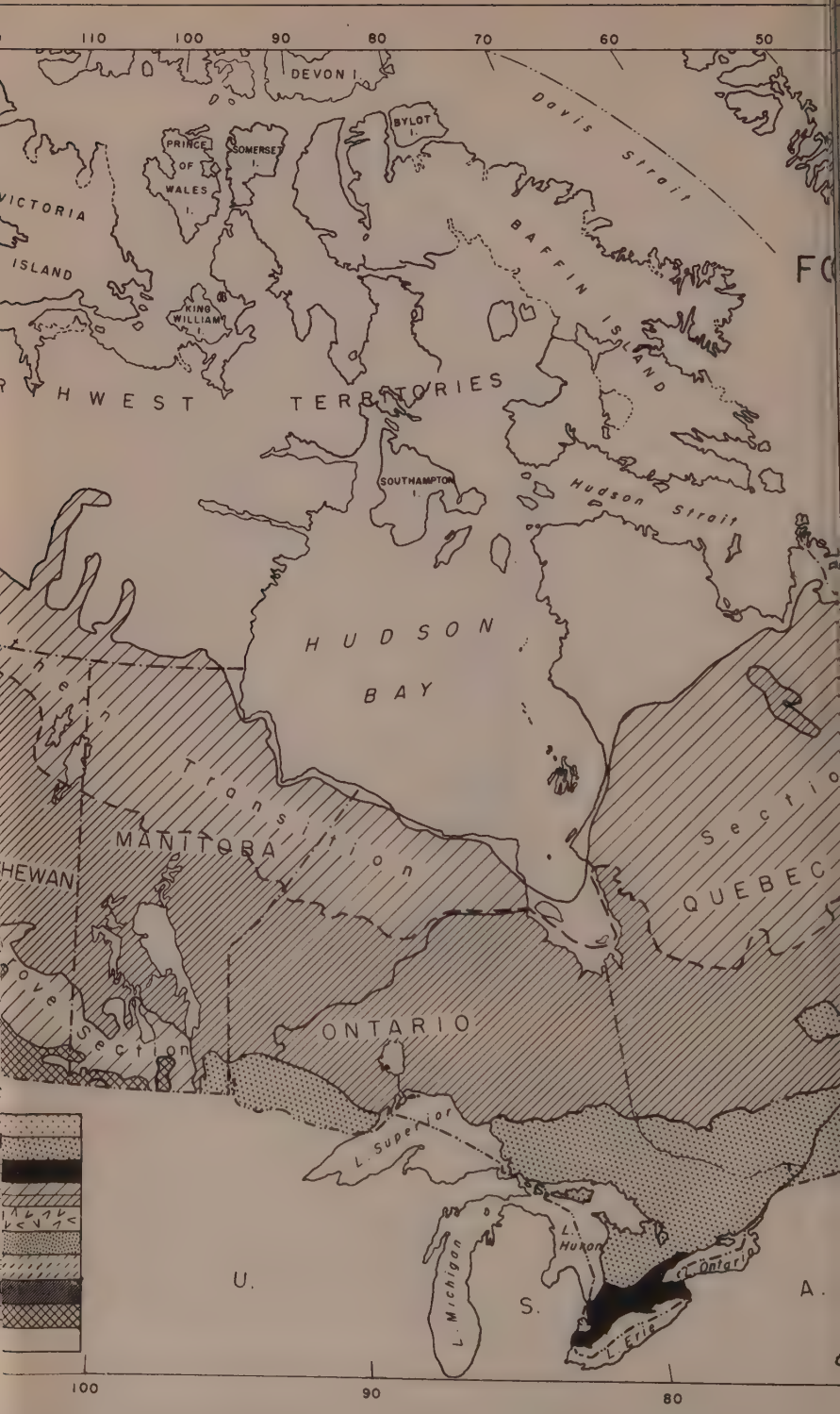
The Acadian Forest Region.—This Region includes Prince Edward Island, Nova Scotia, and all but the northwest corner of New Brunswick. Red spruce is the characteristically dominant conifer, and is usually associated with balsam fir, white and black spruce, hemlock, yellow birch and sugar-maple.

The Deciduous Forest Region.—The Deciduous Region of Canada consists of a small northerly portion of the temperate forest of the same type as in the United States. The Region occupies the Sarnia-Niagara peninsula of southern Ontario. Beech and sugar-maple, associated with basswood, red maple and several oaks are the characteristic trees. Many broad-leaved species such as hickory, black walnut, tulip-tree, cucumber-tree, mulberry, sycamore, sassafras, and a number of other species find their northern limit in this Region.

The Subalpine Forest Region.—This is essentially a coniferous forest region, occupying the upper slopes of the Cordilleran System east of the Coast ranges, and lying between the Alpine Tundra formation and the Montane Forest Region. Generally, the Region lies between altitudes of 3,000 and 6,000 feet. The dominant tree species are Englemann spruce, alpine fir, lodgepole pine and trembling aspen.

The Columbia Forest Region.—The forests of this Region, often referred to as the interior wet belt of British Columbia, comprise stands in the valleys of the Columbia and Fraser Rivers that lie between altitudes of 2,500 and 4,000 feet. These forests are somewhat similar in composition to those of the Coast Region.



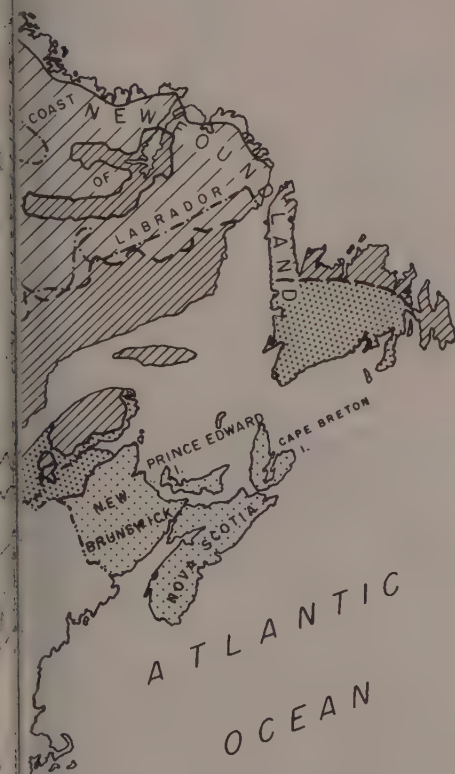


40

30

BEST CLASSIFICATION OF CANADA

SOUTH OF LATITUDE 75°



50

40

70

60

The principal tree species are Englemann spruce, western red cedar, western hemlock and Douglas fir. Associated with these are grand fir, western white pine and western larch. Black cottonwood is found on rich alluvial soils.

The Montane Forest Region.—This Region forms part of the interior dry belt of British Columbia and is found generally at elevations below the Columbia Region. It covers an extensive series of plateaux, valleys and ranges in the interior of the Province. Typical of the Region are ponderosa pine, Douglas fir, lodgepole pine and trembling aspen. Towards the northern half of the Region, ponderosa pine disappears, leaving Douglas fir and lodgepole pine as characteristic species.

The Coast Forest Region.—The western slopes of the Coast and Cascade Mountains and the islands along the coast comprise this Region. It produces the largest trees and heaviest stands in Canada. The dominant trees are western hemlock and western red cedar. Associated with these are Douglas fir in the south and Sitka spruce in the north. Also occurring in the Region are yellow cedar, western white pine and amabilis fir. Black cottonwood and red alder are the most important hardwood species in the Region.

Section 2.—Native Tree Species

There are more than 150 tree species in Canada, of which 31 are conifers, commonly called 'softwoods'. About two-thirds of these softwoods are of commercial importance. Of the large number of deciduous or 'hardwood' species, about 10 p.c. is of any great commercial value to the wood-using industry. About 77 p.c. of the volume of merchantable timber is made up of softwood species.

A short description of the individual tree species is given at pp. 384-387 of the 1947 Year Book. More detailed information on Canadian trees is given in Forestry Branch Bulletin No. 61, *Native Trees of Canada*,* published by the Department of Resources and Development.

Section 3.—Forest Resources

The forested area of Canada (exclusive of Labrador) is estimated at 1,299,759 sq. miles, or 36 p.c. of the total land area. In comparison, only 15 p.c. of the land area is considered to be of present or potential value for agriculture and 4 p.c. is classed as "improved and pasture".

Almost one-half of the total forested area of Canada is classified as "non-productive", i.e., incapable of producing crops of merchantable wood. However, these forests do provide valuable protection for drainage basins and shelter for game and fur-bearing animals.

Of the "productive" half of the forested area, 484,000 sq. miles are considered to be now accessible for commercial operations. For further details see Table 1, p. 19, in Chapter I. The economically inaccessible productive forests contain much valuable timber suitable for lumber and pulpwood. At present it is not economical to conduct cutting operations on these areas but as low-cost methods of transportation are developed, as accessible forested areas become depleted, and as the demand for wood products increases, these inaccessible productive forests will be brought progressively into commercial development. Owing generally to less favourable climatic conditions, the productive capacity of these inaccessible timberlands is expected to be less than that of the accessible areas now being logged.

* Obtainable from the Queen's Printer, Ottawa, price \$1.50.

The strong tendency on the part of many people to evaluate Canada's forest resources in terms of timber alone is understandable. Timber is the most obvious product of forest land and commonly the chief marketable commodity. The non-timber values of the forests, while of great economic importance, have been relatively neglected. However, increasing recognition of these great national assets is developing a broader concept of forestry.

Forest resources are inventoried periodically by provincial forest authorities and, with their co-operation, the Forestry Branch of the Department of Resources and Development compiles the National Forest Inventory. The latest estimates of accessible and total forest stands in the ten provinces and in the Yukon and Northwest Territories appear in Table 1. These estimates are subject to constant revision as more accurate and complete inventories are prepared.

1.—Estimate of Total Stand of Timber, by Type and Size, and by Provinces and Regions

Province and Region	Conifers			Broad-leaved			Totals		
	Saw Material	Small Material	Total Equivalent Volume	Saw Material	Small Material	Total Equivalent Volume	Saw Material	Small Material	Total Equivalent Volume
	Million ft. b.m.	'000 cords	Million cu. ft. ¹	Million ft. b.m.	'000 cords	Million cu. ft. ¹	Million ft. b.m.	'000 cords	Million cu. ft. ¹
Accessible									
Newfoundland ²	3,127	31,902	3,337	—	—	—	3,127	31,902	3,337
Prince Edward Island...	65	560	61	40	240	28	105	800	89
Nova Scotia.....	4,849	23,167	2,939	1,261	5,363	708	6,110	28,530	3,647
New Brunswick.....	5,000	60,000	6,100	1,500	30,000	2,850	3,500	90,000	8,950
TOTALS, ATLANTIC PROVINCES².....	13,041	115,629	12,437	2,801	35,603	3,586	15,842	151,232	16,023
Quebec.....	38,181	450,495	45,928	14,019	176,108	17,773	52,200	626,603	63,701
Ontario.....	42,775	261,515	30,784	11,529	300,380	27,838	54,304	561,895	58,622
TOTALS, CENTRAL PROVINCES.....	80,956	712,010	76,712	25,548	476,488	45,611	106,504	1,188,498	122,323
Manitoba.....	815	9,900	1,005	1,630	19,090	1,949	2,445	28,990	2,954
Saskatchewan.....	580	3,200	388	1,010	50,130	4,463	1,590	53,330	4,851
Alberta.....	7,000	74,400	7,724	2,080	36,000	3,476	9,080	110,400	11,200
TOTALS, PRAIRIE PROVINCES.....	8,395	87,500	9,117	4,720	105,220	9,888	13,115	192,720	19,005
British Columbia—									
Coast.....	76,108	13,922	14,502	—	—	—	76,108	13,922	14,502
Interior.....	33,630	172,364	21,377	—	—	—	33,630	172,364	21,377
TOTALS, BRITISH COLUMBIA.....	109,738	186,286	35,879	—	—	—	109,738	186,286	35,879
Totals, Accessible².....	212,130	1,101,425	134,145	33,069	617,311	59,085	245,199	1,718,736	193,230
Totals, Inaccessible^{2,3}.....	169,834	844,609	103,782	3,385	124,582	11,267	173,219	969,191	115,049
Grand Totals^{2,3}.....	381,964	1,946,034	237,927	36,454	741,893	70,352	418,418	2,687,927	308,279

¹ Cubic volumes do not include wood in stumps and unusable tops.

² Exclusive of Labrador.

³ Including estimates of inaccessible stands in the Yukon and Northwest Territories.

Forest Land Tenure.—Private individuals or corporations own 7 p.c. of Canada's total forest land. The remaining 93 p.c. is still in the possession of the Crown in the right of the Federal Government or of the provinces; rights to cut

Crown timber under lease or licence have been granted on 15 p.c. of the total forest land. Some of the unalienated land has already been logged and has reverted to the Crown but, in the main, it is located in the inaccessible and less accessible areas.

The distribution of occupied Crown forest lands and privately owned forest lands, by provinces, appears in Table 2.

Farm woodlots on the 623,000 farms across Canada cover over 22,780,000 acres (Census of 1951)—13 p.c. of the total farm area and over 7 p.c. of the total accessible productive forest. These small wooded tracts, ranging in size from three or four acres to 200 acres or more, are among the most accessible forests in Canada. Further, the woodlots of Eastern Canada are, in general, highly productive because they lie in the southern parts of the country and frequently occupy soils which are considerably higher in quality than those typical of the northern forests.

2.—Tenure of Occupied Forest Lands, by Provinces, 1951

(Square Miles)

Province	Private Forest Land			Crown Forest Land					Total Occupied Forest Land
	Farm Wood-lots	Other Private Lands	Total	Pulp-wood Licences	Saw Timber Licences	Timber Sales	Permit Berths	Total	
Newfoundland ¹ ...	—	4,082	4,082	15,923	1,193	—	—	17,116	21,198
P.E. Island.....	493	115	608	—	—	—	—	—	608
Nova Scotia.....	3,243	5,222	8,465	700	—	44	—	744	9,209
New Brunswick....	3,455	7,685	11,140	3,833	6,912	—	—	10,745	21,885
Quebec.....	9,317	17,588	26,905	68,039	10,485	—	—	78,524	105,429
Ontario.....	6,039	8,201	14,240	66,254	12,095	—	—	78,349	92,589
Manitoba.....	1,821	5,142	6,963	2,620	328	460	29	3,437	10,400
Saskatchewan.....	3,347	4,000	7,347	—	125	50	—	175	7,522
Alberta.....	3,295	5,743	9,038	—	1,076	236	145	1,457	10,495
British Columbia..	1,584	6,336	7,920	756	2,921	2,379	617	6,673	14,593
Totals¹.....	32,594	64,114	96,708	158,125	35,135	3,169	791	197,220	293,928

¹ Exclusive of Labrador.

Section 4.—Forest Depletion and Increment

A general account of forest depletion and increment is presented in this Section. Details of the scientific control of those influences that account for wastage, viz., forest fires and insect pests, are dealt with in Section 5, Forest Administration.

Depletion.—The average annual rates and cause of depletion of reserves of merchantable timber during the ten years 1940-49, are given in Table 3. Of the total depletion, 79 p.c. was utilized and 21 p.c. was destroyed by fire, insects and disease. The utilization of 2,776,128,000 cu. feet comprised 39 p.c. logs and bolts, 31 p.c. pulpwood, 26 p.c. fuelwood, and the remaining 4 p.c. miscellaneous products. Approximately 6 p.c. of the wood utilized was exported in unmanufactured form.

The more efficient utilization of timber that has been cut is one factor related to forest depletion. There is little doubt that in the past too high a percentage of the sawn logs was discarded. Changes of great significance have been taking place in the uses of wood, permitting the utilization of sizes and qualities unmerchantable as sawn lumber. The development of the manufacture of rayon, cellophane and numerous other products in the cellulose industry is rapidly extending the use of

wood. Plastic-wood products, fibre board and laminated wood are providing an increasing demand for the so-called inferior classes of wood resulting in more complete utilization of the forest resources and in the elimination of much waste.

3.—Average Annual Forest Depletion during the Period 1940-49

Item	Usable Wood	Utilization or Wastage	Depletion
	M cu. ft.	p.c.	p.c.
Products Utilized—			
Logs and Bolts—			
Domestic use.....	1,063,158	38.3	30.3
Exported.....	21,837	0.8	0.6
Pulpwood—			
Domestic use.....	703,750	25.3	20.0
Exported.....	151,943	5.5	4.4
Fuelwood.....	732,285	26.4	20.8
Hewn railway ties.....	7,238	0.3	0.2
Pit props.....	23,672	0.8	0.7
Poles, posts, rails.....	36,145	1.3	1.0
Miscellaneous products.....	36,100	1.3	1.0
Annual Utilization.....	2,776,128	100.0	79.0
Wastage—			
By forest fires.....	239,159	32.4	6.8
By insects and disease.....	500,000	67.6	14.2
Annual Wastage.....	739,159	100.0	21.0
Annual Depletion.....	3,515,287	...	100.0

Increment.—The area of occupied forests in the country totals about 294,000 sq. miles, or 188,000,000 acres. This area includes some land that cannot be classified as productive forest land as well as some water. While precise information is not yet available, the net land area of occupied productive forest is estimated to be not more than 70 p.c. of the total occupied area, or 132,000,000 acres.

Almost all of Canada's primary forest products are obtained from these occupied productive regions. During the post-war period the average annual rate of felling on this area exceeded 25 cu. feet per acre. When an allowance for losses caused by fire, insects and disease is added, the average annual rate of depletion for the whole area approaches 30 cu. feet per acre. In many localities, however, this rate has been greatly exceeded; in others, it has been considerably less. Complete estimates of the rates at which the forests of Canada grow are not yet available. The vast size of the country, the diversity of growing conditions and the complex character of the forests place great difficulties in the way of estimating growth. However, the results of numerous studies indicate that over considerable tracts growth exceeds 25, 30 or even 40 cu. feet per acre per annum, but in other areas classed as productive the growth is much less. It seems probable, therefore, that considerable portions of Canadian forests are being cut too heavily at present. Large areas of productive forest still remain unoccupied and, while some unoccupied forests may prove to be quite as productive as those now occupied, a large proportion is difficult of access and is of relatively low productivity. The general situation emphasizes the urgent need for more intensive sustained-yield forest management.

Section 5.—Forest Administration.

Subsection 1.—Administration of Federal and Provincial Timber-Lands

The major proportion of the forest resources of Canada are owned and administered by the provincial governments. The Federal Government is responsible for the administration of those of the Yukon and Northwest Territories and other federal lands such as National Parks and Forest Experiment Stations. About 97,000 sq. miles are privately owned by individuals or corporations.

The Federal Government's chief responsibility in the field of forestry is to carry out research in problems affecting Canada's forests and their development, conservation and more effective utilization. The Canada Forestry Act, 1949, provides that the Federal Government may enter into agreements with provincial governments, corporations and individuals to develop and conserve Canada's forest resources. Agreements under negotiation provide that during the next five years the Federal Government will pay one-half the cost, to the provinces, of making and maintaining their forest inventories, and one-fifth of the cost of reforesting provincial unoccupied Crown lands.

The general policy of the Federal Government and the provincial governments has been to dispose of the timber under their jurisdiction by means of licences to cut, rather than by the outright sale of timber-land. Under this system the Crown retains ownership of the land and control of the cutting operations. Revenue is received in the form of Crown dues or stumpage (either in lump sums or in payments made as the timber is cut); ground rents and fire-protection taxes are collected annually. All these charges against the timber and land may be adjusted at the discretion of the governments concerned.

The three Maritime Provinces did not adopt this policy to the same extent as did the rest of Canada. In Prince Edward Island practically all the forest land has been alienated and is in small holdings, chiefly farmers' woodlots. In Nova Scotia 73 p.c. of the forest land is privately owned; holdings exceeding 1,000 acres make up more than one-half of this area. In New Brunswick 50 p.c. is under private ownership. The percentages of privately owned forest land in the other provinces are as follows: Newfoundland, 16 p.c.; Quebec, 8 p.c.; Ontario, 6 p.c.; Manitoba, 7 p.c.; Saskatchewan, 9 p.c.; Alberta, 7 p.c.; and British Columbia, 4 p.c.

Provincial lands suitable for growing trees are set aside for timber production and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province of Canada. More detailed information regarding forest administration in each of the provinces, except Newfoundland, is given in the Year Book 1942 at pp. 234-236.

About 1,600 professionally trained foresters are employed in Canada by the Federal Government, by provincial forest services, or by pulp and paper and lumber companies. The staff working for the Federal Government are almost entirely engaged in research; those employed by the provincial governments devote their attention mainly to the administration of provincial forest lands; while those in private industry, although they do some research, are concerned chiefly with forest management and protection.

4.—Forest Reserves in Canada, by Provinces, 1950

NOTE.—Areas of National and Provincial Parks (which are also forest reserves) are not included in this table, but will be found in Table 3, at p. 23.

Province	Federal Forest Experiment Stations	Provincial Forest Reserves	Total
	sq. miles	sq. miles	sq. miles
Newfoundland.....	—	93.40	93.40
Prince Edward Island.....	—	—	—
Nova Scotia.....	—	—	—
New Brunswick.....	35.16	271.00	306.16
Quebec.....	7.25	5,612.00	5,619.25
Ontario.....	97.10	19,526.00	19,623.10
Manitoba.....	25.25 ¹	4,598.46	4,598.46
Saskatchewan.....	—	141,037.00 ²	141,037.00
Alberta.....	62.60	8,585.54	8,648.14
British Columbia.....	—	37,912.05	37,912.05
Totals.....	202.11	217,635.45	217,837.56

¹ Under National Park reservation and therefore not included in total.

² In Saskatchewan, the Northern Forest, established in 1950 with an area of 136,869.73 sq. miles, is comprised of all unalienated lands in the northern part of the Province and includes a number of provincial forests formerly listed separately.

Recent Advances in Forest Management Programs.—During recent years an increasing interest has been shown by governments and industry alike in programs to stimulate production of forest products and, at the same time, perpetuate Canada's forest resources. Most of the provinces require timber operators on Crown lands to submit forest inventories of their cutting areas and to prepare management plans covering operations for a stated period of time.

Saskatchewan has demonstrated the necessity for conservation of its forest resources by curtailing the annual cut to an amount approximating 5 p.c. of the estimated stand of merchantable spruce saw-timber in each particular district.

In British Columbia the granting of forest-management licences under authority of an amendment in 1947 to the British Columbia Forest Act will, undoubtedly, lead to a great improvement in forestry practice in that Province. Continuity of tenure, which is essential to the successful operation of a sustained-yield program, is assured by these licences by which the Minister of Lands and Forests of British Columbia may enter into long-term timber agreements. In 1948 a further amendment to the British Columbia Forest Act established a Forest Development Fund of \$2,500,000 for the building of forest roads and bridges, intended for the economical harvesting of forest products. One company in British Columbia has recognized the need for long-term planning by the establishment of an experimental demonstration forest to study the problems involved in thinning, selective cutting and reforestation in stands of immature timber.

The Provinces of Nova Scotia, New Brunswick and Ontario have each appointed an Advisory Committee composed of representatives of the Provincial Government, the forest industries and other organizations interested in the welfare of the forests, so that forest problems might be discussed and a concerted effort made to solve them for the benefit of all. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on a community basis.

Another aspect of forest management receiving active attention is the collection of more accurate inventory records of forest resources. The provinces, under the stimulus of the Canada Forestry Act, are embarking on programs designed to inventory adequately their forest areas.

The use of air photographs for forestry purposes is a comparatively new field in which progress has been made in both research and practice (*see* p. 461). By the use of such photographs the Forestry Branch of the Federal Department of Resources and Development has been continuing its work on the aerial forest mapping of federally administered lands and other territories of direct concern to Canada. Forest inventory maps are, for example, being prepared from air photographs of the Eastern Rockies Forest Conservation Area. Data are being collected on the ground to support the interpretation of the photographs and the development of instrumental aids is being continued.

Timber Control.—The formal control of timber by the Timber Controller, as established during the war years, ceased on Mar. 31, 1950. Since that date the only controls have been those exercised through licences for the export of logs and pulpwood, required under the authority of the Export and Import Permits Act.

Subsection 2.—Forest-Fire Protection

The Federal Government is responsible for fire-protection measures in the forests under its administration—chiefly those of the Yukon and Northwest Territories, the National Parks, Indian lands, and Forest Experiment Stations. Each of the provincial governments, except that of Prince Edward Island, maintains a fire-protection organization co-operating with owners and licensees for the protection of timbered areas, the cost being distributed or covered by special taxes on timberlands.

In each province, with the exception just mentioned, provincial legislation regulates the use of fire for clearing and other legitimate purposes, and provides for close seasons during dangerous periods. The Province of Quebec has organized a number of co-operative protective associations among lessees of timber limits. These associations have their own staffs, which co-operate with those of the Board of Transport Commissioners and the provincial government. The latter contributes money grants and also pays for the protection of vacant Crown lands lying within the area of the associations' activities. In the Province of Newfoundland, responsibility for the protection of most licensed timberlands is vested in the lessees and the Newfoundland Forest Protection Association, maintained jointly by government and industry, carries out certain important fire-control functions.

The provincial services of forest-fire protection along railway lines are assisted by the Railway Act, administered by the Board of Transport Commissioners. The Board has wide powers relating to fire protection along railway lines under its jurisdiction. Certain officers of the various forest authorities are appointed ex-officio officers of the Board of Transport Commissioners and co-operate with the fire-ranger staffs which the railway companies are required to employ under the Railway Act.

In many districts in Canada, radio-equipped aircraft are used to good effect for the detection and suppression of forest fires. Where lakes are numerous, seaplanes or flying boats can be used for detection and for the transportation of fire-fighters

and their equipment to fires in remote areas. In Western Canada, equipment and supplies are sometimes dropped by parachute to isolated fire crews, or parachutists are employed to fight fires difficult of access by other means.

Fire detection in more settled areas is carried out by means of lookout towers fitted with telephone or radio for reporting and field staffs and equipment are maintained at strategic points. These staffs, when not engaged on fire-control duties, are employed on the construction and maintenance of roads, trails, telephone lines, fire guards and other improvements.

Portable gasoline pumps and linen hose are important equipment and may be carried by canoe, motor-boat, automobile, aircraft, pack-saddle or back-pack. They can provide hose pressures of up to 200 lb. per sq. inch, depending upon the elevation above and distance from the water supply; hose lines of over a mile in length are frequently used. Small hand-pumps supplied by 5-gallon portable containers are also found effective. Bulldozers or ploughs are commonly used for fire-line construction while trucks fitted with water tanks and power pumps are employed for the control of fires adjacent to roads.

The various governmental forest authorities conduct forest conservation publicity work independently and in co-operation with the Canadian Forestry Association. Since its beginning in 1900, that Association has played an important part in securing popular co-operation in reducing the fire hazard. By means of its magazine, which has a large circulation, by railway lecture cars and motor-trucks provided with motion-picture equipment, and by co-operation with radio broadcasting stations and the press, the Association reaches a large proportion of the population of Canada. Efforts are made through the schools, by specially appointed junior forest wardens and other means, to educate the younger generation as to the value of the forests, the devastation caused by fire and the means of preventing such destruction.

Forest Fire Statistics.—The total number of 5,310 forest fires in 1950 was slightly lower than the previous ten-year average of 5,431, although the total area burned, 2,226,765 acres, was 10 p.c. higher than the average loss for the previous 10 years. Fire-fighting costs did not approach the record-breaking totals of 1949, but they did represent an increase of 50 p.c. compared with the average for the preceding ten-year period. The weather in Newfoundland and Nova Scotia was quite dry for the greater part of the fire season, although temperatures were not excessive, and the seriousness of the fire danger conditions in the latter Province necessitated forest closure to travel during June, July and most of August. New Brunswick also experienced a few days of serious fire danger in the spring but, in general, the fire season was considered favourable in the Province as a whole. The forests of Quebec and Ontario were generally drier than normal in the spring but nearly average conditions obtained for the remainder of the season. Manitoba and Saskatchewan had a very favourable fire season. Serious fire dangers occurred in the northern and central portions of Alberta during May, June and October, but better-than-average conditions obtained elsewhere throughout the Province. In British Columbia, the Yukon and Northwest Territories, in the spring, wet weather prevailed generally and during the remainder of the fire season there were only a few isolated instances of the fire danger reaching serious proportions.

5.—Summary Statistics of Forest-Fire Losses, 1949 and 1950, with Ten-Year Averages, 1940-49

Item	Annual Average 1940-49 ¹	Provinces ²		Yukon and Northwest Territories, 1950
		1949	1950	
Fires under 10 acres..... No.	3,919	5,334	3,769	67
Fires 10 acres and over..... "	1,512	1,712	1,541	59
Totals, Fires..... No.	5,431	7,046	5,310	126
Area Burned—				
Merchantable timber..... acres	459,010	395,497	259,205	10,370
Young growth..... "	458,700	889,024	614,605	3,718
Cut-over lands..... "	290,550	149,619	108,701	5,643
Non-forested lands..... "	808,605	1,165,132	1,244,254	723,267
Totals, Area Burned..... acres	2,016,865	2,599,272	2,226,765	742,998
Size of average fire..... acres	372	369	419	5,897
Merchantable Timber Burned—				
Saw-timber..... M ft. b.m.	410,091	192,999	325,743	3,490
Small material..... cords	1,854,212	2,182,593	1,060,367	50,909
Estimated Values Destroyed—³				
Merchantable timber..... \$	2,257,728	2,256,359	2,027,631	39,923
Young growth..... \$	941,395	2,781,044	1,788,698	5,577
Cut-over lands..... \$	269,028	61,681	116,551	11,287
Other property burned..... \$	793,000	856,498	870,941	356
Totals, Damage..... \$	4,261,151	5,955,582	4,803,821	57,143
Actual cost of fire-fighting..... \$	1,313,870	3,062,124	1,973,125	47,138
Totals, Damage and Fire-fighting Cost..... \$	5,575,021	9,017,706	6,776,946	104,281
Other fire protection costs ⁴..... \$	..	12,414,000	..	159,000
Area under protection..... sq. miles	..	998,000	1,046,000	120,000

¹ Newfoundland not included.

² Includes Newfoundland and federal lands within provincial boundaries.

³ Wood values are based on prevailing stumpage rates only; damage to soil, site quality, streamflow regulation, wildlife, recreational and similar values, is not included.

⁴ Estimated charge for new equipment, improvements, maintenance, salaries, etc.

6.—Forest-Fire Losses, by Provinces, 1949 and 1950, with Ten-Year Averages, 1940-49

Item	Annual Average 1940-49	1949	1950
Newfoundland—			
Forest fires..... No.	..	264	260
Area burned..... acres	..	37,491	73,278
Fire-fighting cost and damage..... \$	..	160,346	192,648
Nova Scotia—			
Forest fires..... No.	255	329	360
Area burned..... acres	15,298	5,106	15,062
Fire-fighting cost and damage..... \$	130,859	61,510	87,990
New Brunswick—			
Forest fires..... No.	240	307	294
Area burned..... acres	31,451	4,864	44,417
Fire-fighting cost and damage..... \$	293,372	69,888	777,924
Quebec—			
Forest fires..... No.	1,166	1,537	1,304
Area burned..... acres	286,414	137,889	203,618
Fire-fighting cost and damage..... \$	1,302,325	1,097,689	1,236,994

6.—Forest-Fire Losses, by Provinces, 1949 and 1950, with Ten-Year Averages, 1940-49—concluded

Item		Annual Average 1940-49	1949	1950
Ontario—				
Forest fires.....	No.	1,323	1,834	985
Area burned.....	acres	241,035	60,065	36,780
Fire-fighting cost and damage.....	\$	1,321,453	1,708,310	491,914
Manitoba—				
Forest fires.....	No.	308	383	153
Area burned.....	acres	243,223	168,716	73,834
Fire-fighting cost and damage.....	\$	279,062	377,839	91,864
Saskatchewan—				
Forest fires.....	No.	183	221	116
Area burned.....	acres	264,227	548,873	234,101
Fire-fighting cost and damage.....	\$	174,077	357,451	114,954
Alberta—				
Forest fires.....	No.	274	323	248
Area burned.....	acres	568,356	1,425,731	695,452
Fire-fighting cost and damage.....	\$	1,121,373	4,551,488	2,769,541
British Columbia—				
Forest fires.....	No.	1,554	1,701	1,515
Area burned.....	acres	302,138	145,549	848,246
Fire-fighting cost and damage.....	\$	860,617	561,145	973,677
Federal Lands—				
Yukon and Northwest Territories—				
Forest fires.....	No.	..	36	126
Area burned.....	acres	..	129,384	742,998
Fire-fighting cost and damage.....	\$	..	9,742	104,281
Other Federal Lands—				
Forest fires.....	No.	102	147	75
Area burned.....	acres	60,944	64,988	1,977
Fire-fighting cost and damage.....	\$	75,844	72,040	39,440

7.—Forest Fires, by Causes, 1949 and 1950, with Ten-Year Averages, 1940-49

Cause	Annual Average 1940-49 ¹		Provinces ²				Yukon and Northwest Territories, 1950	
			1949		1950			
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Camp-fires.....	855	16	1,138	16	965	18	42	33
Smokers.....	1,094	20	1,452	21	1,234	23	11	9
Settlers.....	648	12	752	11	661	12	3	2
Railways.....	561	10	792	11	562	11	—	—
Lightning.....	1,036	19	1,362	19	608	12	45	36
Industrial operations.....	193	4	242	4	262	5	3	2
Incendiary.....	162	3	209	3	161	3	—	—
Public works.....	57	1	155	2	97	2	2	2
Miscellaneous known.....	454	8	579	8	499	9	7	6
Unknown.....	371	7	365	5	261	5	13	10
Totals.....	5,431	100	7,046	100	5,310	100	126	100

¹ Newfoundland not included.² Includes Newfoundland and federal lands within the provinces.

Subsection 3.—Research in Forestry

Forest research and forest-products research facilities have been greatly expanded throughout Canada during the past five years. The Federal Government, several provincial governments, the Pulp and Paper Research Institute of Canada, the four universities with faculties of forestry, and a number of the larger industrial companies conduct research in these fields. The Forestry Branch of the Federal

Department of Resources and Development conducts research in silviculture, management, forest air-surveys, forest-fire protection and forest economics. District offices and forest experiment stations are maintained in Newfoundland, New Brunswick, Quebec, Ontario, Manitoba and Alberta. An extensive program of research is under way on the experiment stations and on other lands, where an increasing proportion of the total effort is being expended in co-operation with provincial authorities and industry.

Research in silviculture and management has been concentrated since World War II upon problems of regeneration, growth and stand development, and harvest cutting methods. A regeneration survey extending from the Rocky Mountains to the Atlantic coast has provided information on the status of regeneration on cut-over and burned lands and has been followed by more intensive work to assess the factors responsible for the success or failure of regeneration and to devise practical methods of obtaining reproduction. Studies are made of growth and succession in the most important forest types and of development of a satisfactory basis for classifying forest sites for effective growth and productivity. Research in tree breeding is also carried on for artificial propagation by selection and development of superior strains. Research in forest management devises methods of applying the knowledge of silviculture, regulation of cut and protection in order to manage the forest at its highest production level. A management plan has been prepared for a 300 sq. mile area to be operated by a large pulp and paper company as a demonstration sustained-yield unit.

Forest-fire protection in Canada is a vital problem, and is therefore a major concern of federal and provincial forest authorities. Forest-fire protection of Crown lands is the responsibility of provincial forest services but federal-owned forest lands such as the National Parks, the forest experiment stations, and those in the Yukon and Northwest Territories are the responsibility of the Federal Government. Other organizations responsible for forest-fire protection within their respective territories are the forest protective associations in Quebec and company organizations on privately owned forest land in Nova Scotia and British Columbia. In the field of forest-fire research, the Federal Forestry Branch is working towards full co-operation with the provincial forest services in achieving the best methods of forest-fire protection. The leading contributions of the Branch to date have been in the field of fire-hazard research and in the development of equipment and techniques for fire fighting. Increasing attention, however, is being given to research in such fields as fire-control planning, visible area mapping, detection and communications equipment, and the training of fire crews. A number of provincial forest-protection services are also engaged in research activities. Notable advances have been made in several provinces in the development of forest communications equipment, the dropping of supplies to fire fighters by parachute, and the design of mechanical fire-fighting equipment.

Research in forest air-surveying is of considerable importance because aerial photography provides an excellent means of obtaining reliable information on the extent, character and volume of forest resources. Data from air-photographs are correlated with field work to develop techniques of timber estimating. Statistical formulæ based on stratification and sampling are used for volume determination. Research is being continued in methods for measuring tree images and tree shadows to determine heights, crown widths, crown closure and other data from photographs taken in different seasons of the year under various conditions. Studies are

also being made in the identification of species and subtypes and the classification of forest sites by the use of air photographs. Construction of suitable photogrammetric and other scientific apparatus include the forestry tri-camera method of air photography, which has been developed to provide maximum forestry information at minimum cost; the use of photo-lithographic methods for the reproduction of general forest inventory maps in full colour; and the Shadow Height Calculator, constructed to facilitate the determination of tree heights from shadows in air photographs.

Research in forest economics includes studies and analyses of forest taxation (federal and provincial) and land tenure. A study of the economics of forest management was undertaken on a pulpwood limit in Quebec with a view to the development of a technique for calculating the costs relating to the management of a forest area on a sustained-yield basis and thus provide a model for estimating the cost factors involved for similar forest areas.

Forest Products Research.—Two Forest Products Laboratories conduct forest products research, one at Ottawa, Ont., and the other at Vancouver, B.C. The purpose of this research is to supply the basic and practical knowledge required for the best possible utilization of Canada's forest resources and includes studies of the factors affecting the quality of wood and of manufactured wood products; the factors causing wood waste in logging and manufacturing; the mechanical, physical and chemical properties of wood and their relation to adaptability in use; the treatment of wood and its use in the manufacture of fibre products, alcohol, turpentine, etc.; new and more valuable uses for woods; and the application of laboratory findings to the standardization of lumber grades and the improvement of timber specifications in the building codes of Canadian cities. The Forest Products Laboratories co-operate with similar organizations in other countries, with the provinces and with industry.

The Pulp and Paper Research Institute of Canada at Montreal, Que., a corporation supported by the Federal Government, the Canadian Pulp and Paper Association and McGill University, carries out research in the field of pulps and papers. The program of work includes studies of the structure and properties of wood and bark and their chemical components; the improvement of pulping processes; studies for the improved utilization of waste products; and the improvement in the design of industrial equipment.

The Forest Insects Control Board.—The Forest Insects Control Board operates under the Federal Department of Resources and Development and is composed of nine members representing the Federal and Provincial Governments and the pulp and paper industry. Its purpose is to advise the Minister of Resources and Development concerning methods for control and destruction of insects injurious to the forests of Canada and for the prevention of loss and damage from the attacks of such insects.

Forest Biology.—The Division of Forest Biology of the Science Service, Federal Department of Agriculture, undertakes investigations dealing with the biology and control of insects affecting forest and shade trees and forest products. Ten regional laboratories are maintained at strategic points across the country. The Forest Pathology Unit operates four branch laboratories, one of which, recently established at Sault Ste. Marie, Ont., was designed particularly for fundamental research on virus, fungus and bacterial diseases of insects.

A special article dealing with Noxious Forest Insects and Their Control appears in the Year Book 1947, pp. 389-400. A detailed account of the activities in forest pathology in Canada may be found in the Year Book 1948-49, pp. 416-417.

Section 6.—Forest Utilization

Forest utilization is concerned with the many industries employed in the hewing down of timber in the forest and the transforming of it into the numerous utilitarian shapes and forms required in modern living. The basic industries provide the raw material for sawmills, pulp and paper mills and for the wide range of secondary industries that convert the products of the basic industries into more highly manufactured goods such as veneers and plywoods, sash and doors, furniture and all the vast range of industries that use wood in any form in their processes. These industries, especially the pulp and paper industry and the lumber industry, contribute substantially to the value of Canada's export trade and thereby provide the exchange necessary to pay for a large share of the imports that have to be purchased from other countries, particularly the United States.

Subsection 1.—Woods Operations

In connection with operations in the woods, it should be borne in mind that the forests not only provide the raw materials for the sawmills, pulp-mills, wood distillation, charcoal, excelsior and other plants, but that they also provide logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products which are finished in the woods ready for use or exportation. A number of minor forest products go to swell the total, such as Christmas trees, maple sugar and syrup, balsam gum, resin, cascara, moss and tanbark.

It has been estimated that operations in the woods during the logging season in 1949 gave employment amounting to 37,836,000 man days, and distributed \$321,000,000 in wages and salaries.

8.—Values of Woods Operations, by Products, 1944-49

Product	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
Logs and bolts.....	115,788,036	120,682,306	150,933,681	205,259,855	215,108,932	207,789,335
Pulpwood.....	124,363,926	146,172,701	183,085,359	237,488,741	284,656,819	270,697,980
Fuelwood.....	44,332,748	45,193,219	49,544,756	46,206,336	49,535,855	48,816,965
Hewn railway ties.....	1,289,165	1,339,920	1,131,951	1,177,806	1,303,596	917,033
Poles.....	5,217,255	5,663,793	5,302,324	8,404,809	13,116,480	11,485,488
Round mining timber.....	3,509,015	6,437,074	12,149,767	10,082,458	10,268,435	10,376,305
Fence posts.....	2,216,585	2,690,569	3,091,268	2,832,783	2,489,286	2,640,576
Wood for distillation.....	887,260	687,102	452,196	544,746	497,286	467,997
Fence rails.....	513,135	367,741	605,503	628,804	591,484	644,844
Miscellaneous products.....	3,453,698	5,090,476	6,972,509	7,177,790	8,726,895	7,575,539
Totals.....	301,570,823	334,324,901	413,269,314	519,804,128	586,295,068	561,412,062

9.—Wood Cut in Operations in the Woods, Equivalent in Merchantable Wood, by Production and Consumption of Chief Products, 1948 and 1949, with Comparative Totals, 1940-47.

NOTE.—Details by chief products and by provinces for the years 1926-49 will be found in the D.B.S. Bulletin *Annual Estimate of Operations in the Woods, 1949*.

Year and Product	Production			Consumption		
	Quantity Reported or Estimated	Equivalent Volume of Merchantable Wood ¹	Total Value	Quantity Reported or Estimated	Equivalent Volume of Merchantable Wood ¹	Total Value
		M cu. ft.	\$		M cu. ft.	\$
Totals, 1940 .....	...	2,676,814	194,567,875	...	2,464,193	171,389,830
1941	...	2,683,731	213,163,089	...	2,441,932	187,838,019
1942	...	2,608,605	234,371,891	...	2,391,342	207,017,934
1943	...	2,475,906	268,615,283	...	2,312,200	243,737,886
1944	...	2,508,046	301,570,823	...	2,332,157	270,730,868
1945	...	2,566,058	334,324,901	...	2,375,780	298,992,227
1946	...	2,812,718	413,269,314	...	2,585,060	365,537,917
1947	...	3,091,086	519,804,128	...	2,854,481	466,722,041
1948						
Logs and bolts.... M ft. b.m.	6,561,186	1,250,416	215,108,932	6,529,947	1,245,293	212,701,800
Pulpwood..... cord	12,497,926	1,062,324	284,656,819	10,256,549	871,807	242,338,302
Fuelwood..... "	9,529,510	762,361	49,535,855	9,506,480	760,518	49,199,302
Hewn railway ties.... No.	968,476	4,842	1,303,596	968,476	4,842	1,303,596
Poles and piling..... "	1,029,158	15,437	13,116,480	719,616	10,794	10,110,303
Round mining timber.. cu. ft.	37,728,802	37,729	10,268,435	9,354,202	9,354	2,656,143
Fence posts..... No.	15,970,223	19,164	2,489,286	14,754,045	17,705	2,247,063
Wood for distillation.. cord	45,359	3,629	497,286	45,359	3,629	497,286
Fence rails..... No.	5,039,529	5,039	591,484	5,039,529	5,039	591,484
Miscellaneous products.....	...	37,238	8,726,895	...	8,633	2,023,230
Totals, 1948 .....	...	3,198,179	586,295,068	...	2,937,614	523,668,509
1949						
Logs and bolts.... M ft. b.m.	6,418,489	1,222,980	207,789,335	6,420,946	1,224,000	206,678,229
Pulpwood..... cord	11,850,254	1,007,272	270,697,980	10,243,467	870,695	240,379,337
Fuelwood..... "	9,927,432	794,194	48,816,965	9,908,806	792,704	48,560,692
Hewn railway ties.... No.	747,136	3,735	917,033	747,136	3,735	917,033
Poles and piling..... "	978,890	14,683	11,485,488	774,346	11,615	8,969,235
Round mining timber.. cu. ft.	36,919,312	36,919	10,376,305	10,480,527	10,480	3,126,212
Fence posts..... No.	15,973,298	19,168	2,640,576	15,089,192	18,107	2,452,247
Wood for distillation.. cord	48,058	3,845	467,997	48,058	3,845	467,997
Fence rails..... No.	5,164,016	5,164	644,844	5,164,016	5,164	644,844
Miscellaneous products.....	...	32,177	7,575,539	...	14,109	3,129,003
Totals, 1949 .....	...	3,140,137	561,412,062	...	2,954,454	515,324,829

¹ In estimating the annual drain on Canada's forest resources, certain converting factors have been used, each of which represents in cubic feet the quantity of merchantable wood used to produce one unit of the material in question. The factor for logs and bolts for the British Columbia coastal region is 175 and for the rest of Canada 200. Other factors: pulpwood 85, fuelwood 80, hewn railway ties 5, poles and piling 15, fence posts 1.2 and wood for distillation 80. A change in computing the converting factor was introduced in 1944-45 and is described at pp. 265-266 of the 1946 Year Book.

10.—Equivalent Volumes of Solid Wood Cut and Values of Products of Woods Operations, by Provinces, 1947-49

Province	Equivalent Volumes of Solid Wood			Values of Products		
	1947	1948	1949	1947	1948	1949
	M cu. ft.	M cu. ft.	M cu. ft.	\$	\$	\$
Newfoundland.....	...	...	87,436	...	...	18,114,275
Prince Edward Island.....	13,808	13,251	13,433	1,159,278	1,190,989	1,210,360
Nova Scotia.....	140,706	129,989	117,669	19,498,355	19,141,364	17,199,449
New Brunswick.....	247,912	249,982	225,927	46,165,557	48,820,188	43,256,801
Quebec.....	1,114,018	1,117,130	1,069,977	200,870,414	218,347,191	201,943,530
Ontario.....	613,919	654,268	632,202	109,528,181	130,922,910	125,912,035
Manitoba.....	73,463	74,379	76,147	7,492,875	7,115,628	7,680,752
Saskatchewan.....	93,638	89,096	86,390	6,321,605	6,171,443	6,494,857
Alberta.....	127,480	146,009	136,028	8,618,182	11,710,495	10,496,313
British Columbia.....	666,142	724,075	694,928	120,149,681	142,874,860	129,098,690
Totals.....	3,091,086	3,198,179	3,140,137	519,804,128	556,295,068	561,412,062

Subsection 2.—The Lumber Industry

The manufacture of sawn lumber is the second most important industry in Canada depending on the forest for its raw materials.

The total number of sawmills, tie, shingle, lath, veneer, stave, heading and hoop mills and mills for cutting-up and barking or rossing of pulpwood reports of which were compiled for 1949 was 7,460, as compared with 7,035 for 1948; the increase is attributable to the inclusion of the Province of Newfoundland in the later year. Mills sawing less than 15,000 ft. b.m. are excluded but account for less than one-half of one percent of the total lumber production. Employees numbered 55,032 and wages and salaries amounted to \$97,449,091. The logs, bolts and other materials and supplies of the industry were valued at \$205,935,217, the gross value of production was \$396,415,201 and net value \$186,120,981.

Lumber production in Canada reached its maximum in 1949 at 5,915,443,000 ft.b.m. Average values were fairly uniform until 1916, but increased rapidly from 1917 to 1920, to decline gradually during the following years to the lowest level for the entire period in 1932. With the exception of 1938, increases took place each year from 1933 to 1949.

11.—Quantities and Values of Lumber and All Sawmill Products, by Provinces, 1948 and 1949

Province or Territory	Lumber Production				Values of All Sawmill Products	
	Quantities		Values		1948	1949
	1948	1949	1948	1949	1948	1949
	M ft. b.m.	M ft. b.m.	\$	\$	\$	\$
Newfoundland.....	...	34,060	...	1,586,747	...	2,080,842
Prince Edward Island.....	11,035	9,872	491,035	446,341	551,491	506,591
Nova Scotia.....	319,403	262,963	15,180,381	12,345,754	16,743,884	13,562,282
New Brunswick.....	290,434	294,225	15,131,423	15,130,833	17,510,574	17,858,803
Quebec.....	1,095,719	1,128,076	58,920,212	59,100,719	69,957,892	69,624,009
Ontario.....	760,198	793,039	46,937,848	49,806,861	58,827,577	62,739,000
Manitoba.....	60,846	56,689	2,780,968	2,821,479	3,017,291	3,064,696
Saskatchewan.....	91,228	74,760	3,558,784	3,253,700	3,825,161	3,562,128
Alberta.....	339,574	306,353	12,649,919	12,281,439	13,964,169	13,500,571
British Columbia.....	2,937,410	2,951,183	184,998,056	177,708,047	224,664,156	209,607,511
Yukon and N.W.T.....	2,951	4,223	201,912	307,953	205,277	308,768
Canada.....	5,908,798	5,915,443	340,850,538	334,789,873	409,267,472	396,415,201

12.—Quantities and Values of Lumber Cut, by Kinds, 1948 and 1949

Kinds of Wood	Quantities		Values	
	1948	1949	1948	1949
	M ft. b.m.	M ft. b.m.	\$	\$
Spruce.....	1,982,084	1,898,281	93,431,024	91,322,503
Douglas fir.....	1,514,118	1,593,556	96,765,791	94,268,443
Hemlock.....	651,476	630,900	39,284,255	35,384,094
White pine.....	379,316	391,900	26,005,580	27,610,529
Cedar.....	308,889	304,418	26,833,095	26,162,358
Yellow birch.....	180,611	192,103	11,269,188	12,514,019
Jack pine and lodgepole pine.....	252,781	263,634	12,543,201	12,534,000
Maple.....	111,911	111,620	7,540,317	7,622,728
Balsam fir.....	137,495	151,465	6,447,851	7,019,391
Red pine.....	65,567	67,411	4,175,019	4,357,919
Other kinds.....	324,550	310,155	16,555,217	15,993,889
Totals.....	5,908,798	5,915,443	340,850,538	334,789,873

13.—Quantities and Values of Lumber, Shingles and Lath Produced, 1940-49

NOTE.—Figures for the years 1903-28, inclusive, will be found at p. 300 of the 1931 Year Book, for 1929-30 at p. 262 of the 1943-44 edition and for 1931-39 at p. 415 of the 1947 edition.

Year	Lumber Cut		Shingles Cut		Lath Cut	
	Quantity	Value	Quantity	Value	Quantity	Value
	M ft. b.m.	\$	Squares	\$	M	\$
1940.....	4,629,052	105,991,217	3,823,251	9,597,497	216,465	688,167
1941.....	4,941,084	129,287,703	4,160,772	12,309,632	204,991	731,227
1942.....	4,935,145	149,854,527	3,720,482	13,191,084	181,994	737,874
1943.....	4,363,575	151,899,684	2,565,752	10,020,804	114,029	554,278
1944.....	4,512,232	170,351,406	2,697,724	11,411,359	110,639	645,010
1945.....	4,514,160	181,045,952	2,665,432	11,737,224	117,731	752,245
1946.....	5,083,280	230,189,699	2,646,022	14,512,796	134,591	908,564
1947.....	5,877,901	322,048,356	3,107,248	24,449,305	151,151	1,239,824
1948.....	5,908,798	340,850,538	3,078,215	24,470,746	149,646	1,338,534
1949.....	5,915,443	334,789,873	2,825,261	19,568,633	129,895	1,136,208

Lumber Exports.—For exports of planks, boards and square timber see Chapter XXI, Foreign Trade.

Subsection 3.—The Pulp and Paper Industry

Most of the textual information and the tables normally appearing under this heading have been incorporated, in this edition, in the Special Article on "The Pulp and Paper Industry in Canada". The exceptions are wood-pulp statistics of leading countries and the world newsprint statistics which are given in the following paragraphs.

World Pulp Statistics.—Figures of production, exports and imports of pulp for certain countries of the world have again become available after the interruption caused by World War II and are shown for 1950 in Table 14. It is estimated that these countries produce approximately three-quarters of the world supply of pulp.

14.—Production, Exports and Imports of Wood Pulp, by Leading Countries, 1950

(Source: United States Pulp Producers Association)

Country	Production	Exports	Imports
	'000 tons	'000 tons	'000 tons
Canada.....	8,371 ¹	1,846	37
United States.....	14,811	96	2,385
Finland.....	2,109	1,142	—
Norway.....	1,185	608	23
Sweden.....	3,488	2,305	1

¹ Slightly lower than Dominion Bureau of Statistics figures given in Table 2, p. 469, owing to the exclusion of certain types of pulp by the Association.

World Newsprint Statistics.—Since 1913, Canada has led the world in the export of newsprint. Figures for the leading producing countries for the two latest years available are given in Table 15; 1939 figures are included for comparative purposes. The six countries listed accounted for 81 p.c. of the estimated world production in 1950, Canada contributing over 54 p.c.

15.—Estimated World Newsprint Production and Exports, by Leading Countries, 1939, 1949 and 1950

(Source: Newsprint Association of Canada)

Country	Production			Exports		
	1939	1949	1950	1939	1949	1950
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons
Canada (including Newfoundland).....	3,175	5,176 ¹	5,279 ¹	2,935	4,829 ¹	4,936
United States.....	939	900	1,015	13	39	44
United Kingdom.....	848	529	609	42	68	115
Finland.....	550	423	460	433	391	416
Sweden.....	306	345	358	199	233	226
Norway.....	222	171	175	188	158	148

¹ Slightly lower than Dominion Bureau of Statistics figures given in Tables 4 and 7 at pp. 471 and 474 owing to the exclusion of certain paper not classed as newsprint by the Association.

THE PULP AND PAPER INDUSTRY IN CANADA*

The manufacture of pulp and paper has been the leading industry in Canada for many years, and the post-war development of the industry has more than kept pace with the vast industrial growth of the nation. Pulp and paper stands first among all industries in value of production, in exports, in total wages paid and in capital invested. It is the largest consumer of electric energy and the largest industrial buyer of goods and services, including transportation, in the land. The industry has a newsprint output five times that of any other country and provides for over one-half the world's newsprint needs. Canada is also the world's greatest wood-pulp exporter and stands second only to the United States as a producer of pulp. Thus this Canadian industry, with four-fifths of its output moving abroad, ranks as one of the major industrial enterprises of the world.

Paper was first manufactured in Canada early in the eighteenth century, but it was not until the 1860's, when wood-pulp began to supplement rags as a raw material, that the development of the industry began. The happy conjunction

* Prepared by the Forest Economics Section, under the direction of Dr. D. A. Macdonald, Director, Forestry Branch, Department of Resources and Development, in co-operation with the Canadian Pulp and Paper Association.

of Canada's extensive pulpwood and hydro-electric power resources, together with an ever-increasing demand for pulp and paper, have been mainly responsible for the growth of the industry.

The first Canadian paper mill was located at St. Andrews in Lower Canada and began to produce in 1805. By 1851 there were five mills in Upper and Lower Canada. The first chemical wood-pulp was produced in a soda pulp mill at Windsor Mills, Quebec, in 1864. By 1881 there were 35 paper mills and five pulp mills in Canada with a total of 1,586 employees and an annual output valued at \$2,500,000. The growth of the industry continued at an accelerated pace and from 1900 to 1920 the value of production of the pulp and paper mills increased thirty-fold. After weathering the depression years at a low production level, the pulp and paper industry was again at a 95 p.c. production capacity in 1938. The heightened demand during the War and post-war period added impetus to expansion of the industry, until in 1950 there were 123 pulp and paper establishments in Canada producing 8,473,014 tons of wood-pulp, valued at \$502,583,925 and 428,461 tons of pulp made from rags, straw and other fibres, valued at \$13,073,199. Paper production totalled 6,812,035 tons valued at \$710,153,826. The gross value of production of the mills in 1950 was \$954,137,651, and in 1951 it totalled approximately \$1,200,000,000.

Woods Operations.—Vast forest resources and abundant sources of power, together with the low cost of transporting logs to the mills by a broad network of rivers and streams, have brought about the rapid development of the pulp and paper industry. This industry is the largest tenant of the forest, holding 158,125 sq. miles in 1951 or almost 33 p.c. of the accessible productive forest area of Canada. The industry also owns some timber lands outright, but these remain a minor factor in pulpwood supply.

The pulpwood consumption of the mills in 1950 amounted to some 11,000,000 cords of which 67 p.c. was cut on the leased or freehold limits of the industry. The remaining 33 p.c. of the wood was purchased. Two-thirds of the purchased wood came from farmers and other small holdings.

1.—Production, Consumption, Exports and Imports of Pulpwood, 1941-50

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Year	Apparent Total Production of Pulpwood in Canada			Canadian Pulpwood Used in Canadian Pulp-Mills		Canadian Pulpwood Exported Unmanufactured		Imported Pulpwood Used in Canada	
	Quantity ¹	Total Value	Average Value per Cord	Quantity ¹	P.C. of Total Pro- duction	Quantity ¹	P.C. of Total Pro- duction	Quantity ¹	P.C. of Total Con- sump- tion
	cords	\$	\$	cords		cords		cords	
1941..	9,544,699	88,193,045	9.24	7,688,307	80.6	1,856,392	19.4	81	--
1942..	9,653,574	103,619,151	10.73	7,665,724	79.4	1,987,850	20.6	1,714	--
1943..	8,801,368	110,844,790	12.59	7,260,776	82.5	1,540,592	17.5	2,379	--
1944..	8,668,566	124,363,926	14.35	7,169,430	82.7	1,499,136	17.3	8,209	0.1
1945..	9,145,673	146,172,701	15.98	7,474,375	81.7	1,671,298	18.3	4,133	--
1946..	10,523,256	183,085,359	17.40	8,667,875	82.4	1,855,381	17.6	16,881	0.2
1947..	11,481,522	237,488,741	20.65	9,500,542	82.7	1,983,980	17.3	50,508	0.5
1948..	12,497,926	284,656,819	22.78	10,180,580	81.5	2,317,346	18.5	75,969	0.7
1949 ² .	11,850,254	270,697,980	22.84	10,237,976	86.4	1,612,278	13.6	5,491	--
1950 ² .	12,873,476	285,762,620	22.20	11,138,578	86.5	1,734,898	13.5	28,220	0.3

¹ Given in terms of rough or unpeeled wood.

² Includes Newfoundland.

The nature of the topography, climate and forests of Eastern Canada are such that the cutting and hauling of logs can be carried out most economically during the autumn and winter months. Spruce, balsam fir, jack pine, poplar and other species are felled and the logs are hauled to the nearest streams where they are piled on the ice. Many operations use trucks and tractors and there has been a general increase in the use of mechanical logging methods in Eastern Canada. When the ice breaks up in the spring, the logs are floated down the river to the mills. In British Columbia larger Douglas fir, western hemlock and Sitka spruce logs are assembled by donkey engines, cable systems and tractors, and are transported to the mill, to tide water or to lakes by heavy-duty trucks and trailers or by logging railway. Logs taken to lakes or tide water are assembled into booms and towed to the mills. Logging operations on the west coast are carried out in most instances throughout the year. A great deal of the material used by the pulp mills is sawmill waste such as slabs and edgings.

2.—Pulp Production, Mechanical and Chemical, 1941-50

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Year	Mechanical Pulp ¹		Chemical Fibre		Total Production ¹	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1941.....	3,494,922	61,327,268	2,122,292	113,128,794	5,720,847	175,439,551
1942.....	3,260,097	64,801,837	2,246,438	126,208,457	5,606,461	192,145,062
1943.....	2,998,913	63,426,919	2,188,026	130,010,210	5,272,830	194,519,152
1944.....	3,076,296	71,668,673	2,109,169	138,140,452	5,271,137	211,041,412
1945.....	3,341,920	86,375,001	2,154,267	144,084,969	5,600,814	231,873,122
1946.....	3,997,848	111,514,231	2,427,087	172,756,674	6,615,410	287,624,227
1947.....	4,275,269	147,423,552	2,755,977	251,273,372	7,253,671	403,853,235
1948.....	4,413,513	168,343,496	2,997,281	310,338,614	7,675,079	485,966,164
1949.....	4,718,806	166,591,741	2,891,418	272,355,430	7,852,998	445,138,494
1950 ²	4,910,803	173,035,433	3,314,250	323,330,963	8,473,014	502,583,925

¹ Includes screenings and unspecified pulps.

² Includes Newfoundland.

3.—Pulp Production, by Chief Producing Provinces, 1941-50

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Year	Quebec		Ontario		Canada ¹	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1941.....	2,971,386	89,103,399	1,507,324	46,908,967	5,720,847	175,439,551
1942.....	2,896,440	97,632,408	1,518,967	51,936,704	5,606,461	192,145,062
1943.....	2,617,403	94,054,176	1,490,966	54,818,046	5,272,830	194,519,152
1944.....	2,767,081	105,042,991	1,316,365	54,934,993	5,271,137	211,041,412
1945.....	2,887,176	114,197,036	1,468,682	62,596,260	5,600,814	231,873,122
1946.....	3,460,853	140,930,891	1,837,975	84,049,038	6,615,410	287,624,227
1947.....	3,751,579	194,805,327	2,100,237	122,382,058	7,253,671	403,853,235
1948.....	3,902,072	227,425,545	2,226,124	153,870,832	7,675,079	485,966,164
1949.....	3,698,401	196,568,691	2,138,444	140,662,434	7,852,998 ²	445,138,494 ²
1950.....	3,922,543	216,299,900	2,297,518	156,390,753	8,473,014 ²	502,583,925 ²

¹ Includes production in British Columbia, Manitoba, New Brunswick and Nova Scotia.

² Includes Newfoundland.

Manufacturing Processes.—Pulpwood logs come to the mills either by floating down a convenient stream, by truck, by railway, or by water transport. On arrival the bark is removed in barking drums. Slightly different wood-handling methods are employed by the Pacific coast mills.

Wood is made into paper by first converting it into pulp. Two pulping methods are used, one mechanical and the other by cooking with chemicals. The mechanical process produces groundwood pulp, which is exactly what its name implies. Wood is reduced to fibre by pressing against large revolving grindstones. Hence large quantities of power are required. The yield of groundwood or mechanical pulp approximates 97 p.c. of the weight of the wood.

In the chemical process small chips of wood, about three-quarters of an inch in length, are cooked at high temperatures and under pressure in a chemical liquor. The cooking, requiring several hours, dissolves virtually everything in the wood other than the cellulose. The yield of pulp is therefore reduced to from 45 to 50 p.c. of the weight of the wood. Three such chemical pulping processes are employed to produce sulphite, sulphate, or soda pulp which obtain their names from the acid or alkali employed in the cooking process.

Paper is made from pulp which, thinly mixed in water, travels in a wide stream on to the wet end of the paper-making machine. As the pulp and water move ahead on a travelling screen, the water is removed from the pulp, which then passes over a series of heated revolving drums in the dry end of the machine where the paper emerges. Thus, the paper is the result of a process of felting and drying the cellulose fibres of the original wood. Machine speeds vary with design as well as the type and weight of the paper made. Some machines produce newsprint at the rate of close to 2,000 ft. a minute. About 250 tons of water may be used to produce one ton of paper.

The type of mixture of pulp employed determines the character of the paper produced. Newsprint is composed of about 85 p.c. groundwood and 15 p.c. unbleached sulphite pulp. Bleached sulphite pulp is the raw material from which is made the better grades of book, writing and tissue papers. When pulp is made for use as the raw material for rayon, cellophane, photographic film, nitro-cellulose and plastics, it is known as "dissolving pulp". Sulphate, or kraft pulp, in its unbleached form is used to produce wrapping and bag papers, container boards and other products in which strength is the prime requisite. When bleached, this pulp is used to manufacture white printing, tissue, tag, envelope and other papers and products in which strength is also essential. Soda pulp is made by pulping short-fibred, broad-leaved species such as poplar, but relatively small quantities are produced in Canada. The raw material of paper-board may include anything from waste paper and pulp screenings (the pulp rejected for paper manufacture) to the finest grades of chemical pulp. Its components vary with the quality and type desired. Canada produces also some pulp made from rags and other fibrous material. Rag pulp goes into the highest grades of paper.

Virtually all papers and paper boards made to-day contain ingredients other than cellulose fibres. Before the pulp goes to the paper machine, dye is added to produce the colour desired. A filler such as china clay, or a size such as resin, or both, may also be added—filler to improve printability, opacity and appearance and size to increase resistance by liquids. To improve the surface of some high-

grade papers and paper boards, the finished sheet is coated by spreading a mixture of mineral matter, adhesives, waxes or waterproofing agents on the surface of the sheet.

Between 1913 and 1930 the Canadian newsprint industry experienced a rapid and spectacular growth; by 1925 it had become the world's largest producer. Following the period of high prices and wide prosperity during the 1920's, the effect of the depression on the industry was devastating. Thus, between 1929 and 1932, when new Canadian mills and machines were still being completed and searching for business, the output of Canadian newsprint dropped by almost 30 p.c. In 1935 demand began to show improvement and in 1937 the industry was operating at 95 p.c. capacity. In the eight succeeding years which included World War II, newsprint production figures and values were relatively stable. After the War, tonnages and values rose rapidly, and during the six-year period 1945 to 1950 output increased by 60 p.c.

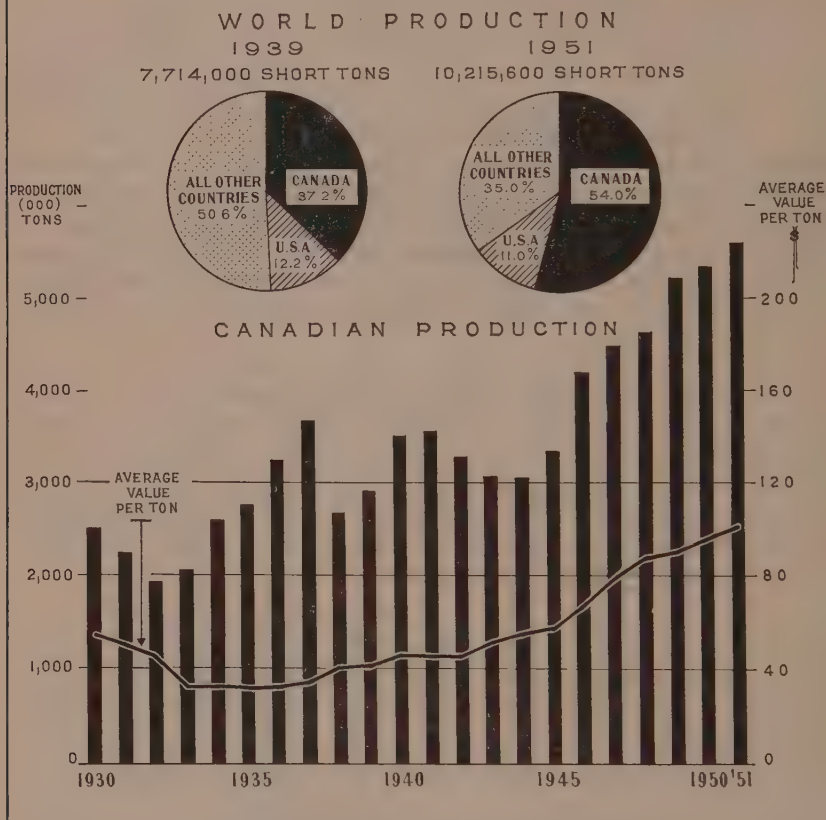
4.—Paper Production, by Type, 1941-50

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year	Newsprint Paper		Book and Writing Paper		Wrapping Paper	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1941.....	3,519,733	158,925,310	117,444	18,476,397	162,581	16,744,806
1942.....	3,257,180	147,074,109	121,419	19,181,665	165,991	17,221,769
1943.....	3,046,442	152,962,868	122,174	19,047,039	145,545	15,614,453
1944.....	3,039,783	165,655,165	155,498	23,700,310	156,721	16,699,663
1945.....	3,324,033	189,023,736	162,198	24,468,409	162,175	17,558,552
1946.....	4,162,158	280,809,610	189,318	29,995,156	175,369	20,797,070
1947.....	4,474,264	355,540,669	210,762	39,727,187	183,742	26,009,996
1948.....	4,640,336	402,099,718	231,608	45,178,968	207,128	31,036,805
1949 ¹	5,187,206	467,976,343	199,317	40,598,820	195,585	30,033,478
1950 ¹	5,318,988	506,968,207	214,097	47,356,410	222,840	37,776,291
	Paper Boards		Tissue and Miscellaneous Paper		Totals	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1941.....	649,840	40,214,658	75,178	7,089,121	4,524,776	241,450,292
1942.....	609,175	38,641,867	78,002	8,150,102	4,231,767	230,269,512
1943.....	568,101	37,528,257	84,082	8,883,535	3,966,344	234,036,152
1944.....	588,348	39,091,667	104,026	10,399,036	4,044,376	255,545,841
1945.....	595,131	40,100,872	116,039	11,686,045	4,359,576	282,837,614
1946.....	683,643	50,213,833	136,630	15,140,721	5,347,118	396,956,390
1947.....	744,377	66,126,302	156,937	19,697,123	5,775,082	507,101,277
1948.....	817,432	80,864,700	167,142	23,166,651	6,063,646	582,346,842
1949 ¹	797,023	80,632,075	160,838	22,219,122	6,539,969	641,459,838
1950 ¹	876,894	92,531,711	179,216	25,521,207	6,812,035	710,153,826

¹ Includes Newfoundland.

NEWSPRINT PRODUCTION, 1930-51



5.—Paper Production, by Provinces, 1949 and 1950

Province	1949		1950	
	Quantity	Value	Quantity	Value
	tons	\$	tons	\$
Quebec.....	3,222,063	310,752,857	3,315,631	339,748,513
Ontario.....	1,817,933	189,616,876	1,903,721	211,416,005
British Columbia.....	471,619	46,478,981	498,286	52,845,416
Nova Scotia, New Brunswick, Manitoba and Newfoundland.....	1,028,354	94,611,124	1,094,397	106,143,892
Totals.....	6,539,969	641,459,838	6,812,035	710,153,826

The industry's output of products, other than newsprint, has expanded in a spectacular fashion in the past thirty years. The production of pulp for sale increased two and one-half times; paperboard production increased to nearly eight times its 1922 total; wrapping paper production almost trebled; book and writing paper more than trebled; the output of tissue paper increased to almost twenty times its 1922 level, and all other paper grades, excluding newsprint, increased five-fold.

High tariffs, both in the United States and overseas, have limited the markets for paperboard and fine papers and output goes chiefly to the domestic market. The manufacturers have steadily increased the number of standard and specialty grades which they have produced, and have developed a wide variety of industrial papers for use in the electrical industry and in the manufacture of paperboard containers, paper cups, towels and grease-proof papers for food.

External Trade.—The level of domestic trade, the national income, and the standard of living in Canada depend largely on the flow of Canadian exports abroad. During the 15 years from 1927 to 1941, pulp and paper accounted for from 14 to 24 p.c. of the total value of Canadian exports. From 1920 to 1941 pulp and paper exports were never less than 12 p.c. of total exports. In the post-war years, 1947 to 1951, pulp and paper has accounted for from 20 to 25 p.c. of the total value of all Canadian exports.

Because of the high level of munitions production during the war years, pulp and paper occupied a less dominant position in the export market. Nevertheless, from 1943 to 1945 pulp and paper comprised between 8 and 10 p.c. of total Canadian exports. With the return of peace, the industry immediately climbed back to its position as Canada's largest single exporter.

During the years 1925 to 1946, about 75 p.c. of Canadian pulp and paper production moved abroad. Of the pulp produced for sale, more than 85 p.c. was exported. In 1950 about 77 p.c. of the entire production of pulp and paper was exported, accounting for nearly one-quarter of all Canadian exports.

The chief market for Canadian newsprint and pulp is in the United States. Prior to the War this market alone absorbed about 85 p.c. of the pulp exports and 80 p.c. of the newsprint exports. In 1945 the proportions were 71 p.c. and 83 p.c., respectively, and in 1950, 80 p.c. and 96 p.c., respectively.

6.—Exports of Pulp to the United Kingdom, United States and All Countries, 1941-50

Year	United Kingdom		United States		All Countries	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1941.....	265,977	15,412,380	1,108,845	68,161,163	1,411,724	85,897,736
1942.....	294,056	17,950,527	1,197,425	76,087,788	1,510,746	95,266,873
1943.....	263,392	17,349,975	1,269,043	80,969,868	1,556,457	100,012,775
1944.....	292,808	21,393,993	1,077,811	77,081,637	1,408,081	101,563,024
1945.....	290,885	22,276,514	1,093,631	79,589,366	1,434,527	106,054,911
1946.....	119,973	10,122,012	1,252,648	99,972,972	1,418,558	114,020,659
1947.....	136,976	14,741,287	1,499,302	156,121,526	1,698,712	177,802,612
1948.....	170,227	21,359,288	1,591,043	184,983,027	1,797,998	211,564,384
1949 ¹	181,828	20,137,715	1,305,334	141,641,380	1,557,348	171,504,163
1950 ¹	117,921	13,128,894	1,694,444	191,005,507	1,846,143	208,555,549

¹ Includes Newfoundland.

7.—Exports of Newsprint Paper to the United Kingdom, United States and All Countries, 1941-50

Year	United Kingdom		United States		All Countries	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1941.....	94,082	4,492,699	2,762,241	129,162,253	3,262,012	154,356,543
1942.....	35,123	1,704,069	2,792,181	130,519,094	3,005,291	141,065,618
1943.....	30,427	1,773,834	2,544,691	129,787,019	2,810,288	144,707,065
1944.....	41,908	2,557,791	2,408,960	133,398,723	2,805,776	157,190,834
1945.....	105,648	6,564,645	2,533,564	146,507,805	3,058,946	179,450,771
1946.....	82,888	5,954,814	3,323,238	224,782,463	3,858,467	265,864,969
1947.....	55,520	4,623,491	3,675,349	291,892,729	4,220,779	342,293,158
1948.....	60,690	5,319,660	3,917,366	340,334,045	4,328,184	383,122,743
1949 ¹	103,213	9,930,070	4,346,414	395,259,575	4,789,296	440,054,067
1950 ¹	19,095	1,861,980	4,724,937	463,155,927	4,938,069	485,746,314

¹ Includes Newfoundland.

Importance of the Industry in the Canadian Economy.—The pulp and paper industry is one of the larger contributors to the public purse in Canada. Taxes and payments of all kinds to governments run to \$135,000,000 annually, but the extent to which the industry contributes to the national welfare cannot be assessed solely on this basis. Its operations create vast additional sources of government revenue including: hydro-electric facilities built to meet the power requirements of the industry; almost \$300,000,000 paid out annually in wages; a freight traffic alone involving the loading of more than 1,000 freight cars daily; and the operation of many converting industries ranging from the publishing trades to the manufacture of cartons, plastics and rayons. The significance of the industry in the economy may be judged also from the fact that it accounts for about one-third of all the power used by industry and in mining; that it accounted for almost one out of every eight revenue freight cars loaded in Canada in 1951; that the value of its output exceeds the mineral production of Canada including gold and all metallics, coal, gas, and petroleum; that its exports are close to twice the value of wheat and all other exports of grain; and that it expends annually \$72,000,000 for chemicals and mill supplies, \$44,000,000 for fuel, and \$100,000,000 for other purchases. Indeed, the gross value of the production of the industry exceeds 5 p.c. of the gross national product of Canada.

The pulp and paper industry uses the products and services of other Canadian industries on a wide scale, from agriculture to insurance and from retailing to rail-roading. Many branches of the national economy derive revenues or benefits from pulp and paper operations. The industry is a larger buyer of goods and services than any other manufacturing industry in Canada.

Including woods-workers, close to 280,000 Canadians received pay from the pulp and paper industry in 1950, which means that about 1,000,000 Canadians depend directly on the industry, in whole or in part, for their livelihood. Sums paid to workers in 1950 ran to an estimated \$270,000,000. Employees in the mills received in salaries and wages \$169,246,531, and workers in the woods an estimated \$101,000,000. In that year the industry, in the mills alone, employed 52,343 people.

In addition, the industry provides seasonal work in the woods for about another 225,000 workers. Except in British Columbia, woods-workers are employed chiefly on a seasonal basis. While the industry is the largest exporter of manufactured goods in Canada, the products that it manufactures for home consumption loom large in domestic trade.

Outlook.—To-day there is an urgent need throughout the world for pulp and paper products of all kinds. Pulp, formerly used merely for paper, is in increasing demand as raw material for the fabrication of rayon, cellophane, plastics, building and packaging materials and many other products.

The main pulpwood sources of the world lie in the forests of the Union of Soviet Socialist Republics, the United States, Canada and Scandinavia. In the United States, pulp and paper consumption far exceeds that country's production of pulpwood. Production of wood-pulp in Scandinavia appears to have reached the productive capacity of the forests in that area. No extensive development for pulpwood of the tropical forests of the world appears imminent, and any considerable increase in pulp and paper production in the Soviet Union could be absorbed within that country. Thus, it is apparent that for some time to come the task of supplying a major portion of the pulp and paper demand of the free world must fall to Canada. In meeting this need, the pulp and paper industry can contribute in no small measure to the stability of the Canadian economy, particularly in the years that lie immediately ahead.

With vast supplies of wood, streams to float the logs to the mills, and abundant electric power for their conversion into pulp and paper, the resources of the industry are unsurpassed anywhere and from these resources flow an essential commodity—one which is the very currency of civilization. All these advantages and qualities would be meaningless, however, if the industry could not dispose of its products. So far as Canada is concerned, it is largely an export industry and, as such, must depend for its existence on its ability to secure and maintain export markets.

CHAPTER XII.—MINES AND MINERALS*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Canada's Mineral Resources

The mineral resources of the provinces of Canada are dealt with in some detail in the 1951 Year Book, pp. 486-495. The following Special Article, together with the article on pp. 524-527, gives an account of the tremendous expansion that has taken place in the development of those resources since the end of World War II.

POST-WAR EXPANSION IN CANADA'S MINERAL INDUSTRY†

In the light of its remarkable growth since World War II, mining in Canada can well be described as an industry on the march. True, inflationary prices have accounted for much of the increase in the value of its output from \$498,755,181 in 1945 to a record \$1,228,000,000 in 1951 for, like that of practically every other commodity, the price of almost every metal and mineral produced in Canada has risen sharply since the War. However, the total volume of mineral production has also increased, the figure for 1951 being about 65 p.c. higher than that for 1950.

In any event these volume and value increases provide only part of the record of the expansion that has taken place. The real story lies in the many outstanding developments that have occurred in the past seven years and that have literally transformed much of the Canadian mining landscape. The article entitled "Canadian Crude Petroleum Situation", at pp. 524-527, gives a descriptive account of what is, beyond question, the greatest of these developments.

Next in importance—in fact equally as important in many respects—are the iron ore developments, and here, too, the *before* and *after* contrasts are sharp. Prior to 1939, Canada produced little or no iron ore. The requirements of the

* Except where otherwise noted, this Chapter has been revised in the Mining, Metallurgical and Chemical Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

† Prepared under the direction of Marc Boyer, Deputy Minister, Department of Mines and Technical Surveys, Ottawa, by G. H. Murray, Chief, Editorial and Information Division, and Mrs. M. J. Giroux of the Editorial staff.

Canadian steel industry were met by imports, mainly from the United States, and from Newfoundland, which entered Confederation in 1949. From 1939 until 1944 the entire Canadian output came from the Helen mine of Algoma Ore Properties Limited in the Michipicoten area of Ontario.

Meantime, two events occurred which were to change the outlook completely—the discovery of large deposits of hematite in the Steep Rock area 140 miles west of Port Arthur in Ontario, and the disclosure of large deposits of this ore in the Quebec-Labrador region. In both cases the discoveries were made just prior to World War II. Currently, both areas are sharing the limelight and, in addition, the huge Wabana deposits in Newfoundland now comprise a part of Canada's wealth of iron ore.

From here on, the order of importance of the outstanding post-war developments in mineral production would be difficult to appraise. Whether it be the disclosure of large quantities of natural gas in Alberta or the discovery of deposits of titanium ore in eastern Quebec, the discoveries of asbestos in British Columbia and Ontario, the huge aluminum project at Kitimat in British Columbia, or a number of other enterprises of varying importance that could be mentioned, it is evident that Canada has been witnessing the greatest wave of mineral resources development in its history.

Actually, this expansion developed somewhat slowly at first. There was an abrupt slackening in the demand for most mine products during 1946 when the industry in Canada and elsewhere was in the process of readjustment to a peacetime basis. Soon, however, the effects of the curtailment in the output of civilian goods during six years of war became evident in a demand for such goods far in excess of any ever experienced.

The setting for an expansion of the country's mineral economy was close to ideal. Prices were rising, there was every reasonable assurance of a prolonged demand for mine products and industry as a whole in Canada was expanding rapidly, thus adding to the demand for mineral raw materials. If more were needed in the way of incentive it was provided in the discovery of the Leduc oil field in Alberta in February 1947. That event perhaps more than any other single post-war development brought Canada's mineral possibilities sharply into focus and caused Canadians and others to gain a new conception of the country's mineral estate, a conception that would have been regarded as visionary if not extravagant even 25 years ago.

The effects have been cumulative. The Leduc discovery has brought the whole Prairie region of several hundred thousand square miles into perspective as holding possibilities of further important discoveries and of resultant disclosures of natural gas; the high base-metal prices have brought within economic range several deposits of these metals in various parts of Canada which would otherwise have remained undeveloped, and have caused attention to turn to the re-examination of many long-dormant properties; the high prices for other mine products, coupled with the steadiness of the demand, have encouraged the establishment of new enterprises and the large-scale expansion of existing enterprises.

A cross-sectional survey of the nature and scope of this post-war expansion and of the more important developments follows, on a regional basis.

British Columbia.—This Province, whose mining history dates back to the discovery of gold in the gravels of the lower Fraser River close to a century ago and whose contribution to Canada's mineral output up to the end of 1951 has

amounted to upwards of \$3,000,000,000, has been experiencing a tremendous upsurge of mining and related activity. Practically every favourable section of the great expanse of Cordilleran rocks which underlie most of the Province has been receiving attention in the belief that these rocks contain much hidden wealth, a belief supported by encouraging results up to date. Modern means of transportation permit easier access to many areas that were formerly difficult to reach, and road improvements, power development and cheaper processing and extractive methods, coupled with high prices, make the development of prospects and properties in these areas feasible. Mineral discoveries made 30 to 50 or more years ago when primitive methods of transportation proved an effective barrier to their development, are now being reappraised.

From the outset the production of metals has been the mainstay of the Province's mineral economy and in 1951 accounted for 85 p.c. of the total value of the mineral output in that year. Lead, zinc, copper, gold and silver are the chief metals produced, the Province being the leading world producer of lead and zinc and well to the fore in silver production. Chief source of these three metals is the great Sullivan mine of the Consolidated Mining and Smelting Company of Canada Limited at Kimberley in the East Kootenay area. This Company, with its operations at Kimberley, its sprawling metallurgical plants at Trail, and its various other activities, forms the hard core of British Columbia's mineral industry. In addition to ores of the Sullivan mine the Company treats ores from over 100 properties in the Province on a custom basis and is the sole Canadian producer of tin and bismuth and a leading producer of cadmium and antimonial lead, and of fertilizer and other chemical products.

Practically all of British Columbia's output of copper has come from deposits in the western Cordilleran Region and in recent years mainly from Granby Consolidated Mining Smelting and Power Company's operations at Allenby and from those of Britannia Mining and Smelting Company at Britannia Beach. The output is in the form of copper concentrates which are shipped to the smelter at Tacoma, Washington, for recovery of the copper. The output in 1951 was 21,905 tons valued at \$12,096,306.

Placer gold mining has dwindled in importance over the years and much the greater part of the gold output now comes from gold-quartz mines in the Bridge River, Atlin, Hedley, and other areas. This production, too, has been declining sharply, the output of 202,130 oz t. in 1951 being less than one-half that of 1941. Base-metal operations account for the remainder of the output.

Iron ore and tungsten concentrates round out the list of metallic ores produced in British Columbia. Production of the former was never large and has been intermittent but, as noted later, there has been a revival of interest in the development of deposits. The tungsten concentrates come from operations in the Salmo area, to which reference is also made later. The Province accounted for all the Canadian output of 20,000 lb. of tungsten ore in 1951.

Though small in comparison with that of the metals, the Province's output of the non-metallic minerals has been increasing, a trend which seems likely to continue in view of recent developments, including the discovery of crude oil in the Peace River area near the end of 1951; the commencement of production from asbestos deposits discovered in the McDame area in 1950, and the expansion in the cement industry. Coal is the chief single contributor to the output of non-metallic minerals. Bituminous coking coal ranging from high to low volatile is

mined on Vancouver Island and in the Crowsnest, Telkwa, and Nicola areas. Lesser quantities of sub-bituminous coal are produced, mainly in the Princeton field. In 1951 coal was followed in order of production by sand and gravel, cement, stone, and clay products.

Foremost among post-war developments is the huge project of the Aluminum Company of Canada Limited at Kitimat, in the Prince Rupert area. This project involves the development of over 2,200,000 h.p. of hydro-electric energy through the construction of a dam on the Nechako River and includes also the construction of an aluminum smelter at Kitimat with a planned capacity of 500,000 short tons of aluminum a year. Output is expected to commence in 1954 at an initial rate of 100,000 tons a year. As in the case of Canada's present output of the metal, all the aluminum from the Kitimat project will be produced from imported ore. Cost of the project when completed is estimated at \$600,000,000.

Next in importance is the \$65,000,000 expansion program by the Consolidated Mining and Smelting Company. This includes modernization of the lead smelter at Trail at an estimated cost of \$12,000,000; construction of an addition to the electrolytic zinc refinery at Trail at a cost of \$3,200,000, mainly to handle increasing tonnages of custom ore as well as concentrates from the Bluebell and other properties the Company is preparing for production; construction of a fertilizer plant at Kimberley to have a capacity of 70,000 tons a year and to cost an estimated \$9,000,000 with completion scheduled early in 1953; construction of a \$30,000,000 power plant on Pend d'Oreille River, also scheduled for completion in 1953; and rehabilitation of the Company's Tulsequah Chief, H.B., Bluebell, and Big Bull mines.

Though other developments are on a smaller scale they are nevertheless impressive. The recent disclosure of large tonnages of much-needed tungsten ore in the Canadian Exploration Company's Dodger property in the Salmo area has resulted in great activity. The Company has been treating the tungsten ore of the Emerald mine for the Federal Government, which owns the tungsten section of the property, and capacity has been increased to 500 tons a day to permit handling of the Company's tungsten ore also. As a result, Canadian production of tungsten will be well in excess of domestic requirements by the end of 1952. The Company's nearby Jersey lead-zinc mine is also developing into a major operation and ore is being milled at a rate of 300,000 tons annually. In the same area, the Reeves MacDonald lead-zinc property which entered production in 1949 has since doubled its output of ore and is now handling about 1,000 tons a day. In the northern coast area the Tulsequah Chief and Big Bull copper-lead-zinc mines were brought into production by Consolidated Mining and Smelting Company in 1951, and preparations to start production of lead and zinc concentrates at the Company's Bluebell mine on Kootenay Lake at 500 tons a day and at its H.B. mine near Salmo at 1,000 tons a day are well advanced. A property near Spillimacheen, one at Ainsworth, and another near Cranbrook entered production in 1951 and a zinc-lead mine in the Revelstoke area is nearing production. As a result of these developments, a sizable increase can be expected in the Province's output of lead and zinc.

Most of the iron ore developments are on a small scale as yet but interest in the search for deposits and in the re-examination of properties has been increasing. Argonaut Company Limited, which took an option on the Iron Hill mine near Quinsam Lake on the east coast of Vancouver Island in 1949, commenced shipments of magnetite concentrate from the property in September 1951. The ore is mined

by open-pit methods and is beneficiated to raise the iron content to 58 p.c. Production is now at a rate of 50,000 tons a month and known reserves are estimated at 1,700,000 tons. On Texada Island, Texada Iron Mines Limited has been conducting a drilling program on its magnetite deposits and commenced the shipment of ore in the spring of 1952. Quatsino Copper-Gold Mines Limited has been drilling its Elk River property in the Quatsino area and has disclosed proven and probable reserves estimated at 922,000 tons.

It should be noted in connection with these developments that many deposits of magnetite and a few of hematite and limonite are known in British Columbia. The deposits vary widely in size, shape and attitude and close exploration is required to determine their contained tonnage. Among the larger known occurrences are those of Zeballos River, Iron Hill and Iron River, and Texada Island, all of which are well located with respect to coal deposits, transportation and important industrial centres.

British Columbia's production of the non-metallic minerals has increased in annual value from \$13,613,972 in 1945 to \$25,178,185 in 1951, the chief minerals in order of value of output in 1951 being coal, sand and gravel, cement, sulphur (content of sulphuric acid), stone and peat moss. The chief developments in the non-metallic minerals since the War are the discovery of chrysotile asbestos in the McDame Creek area in northern British Columbia and, more recently, the discovery of natural gas with distillate in the Peace River District, this being the first commercial discovery of natural gas with oil in the Province. Cassiar Asbestos Corporation Limited was formed in 1951 to acquire the asbestos deposits and a mill is under construction for the initial production of fibre. The oil discovery was made in Pacific Allied's Fort St. John No. 1 well, five miles south of Fort St. John and the oil was reached at a depth of 5,635 ft. As a result of this discovery exploration permits for oil and gas in the Province at June 15, 1952, covered 33,601,456 acres, principally in northeastern British Columbia but also in the New Westminster, Kootenay, Cariboo and Flathead districts.

Alberta.—The discovery of crude petroleum in the Leduc field in February 1947 has proved to be the most outstanding development in Alberta's industrial history. The succession of events that followed has focussed world-wide attention on the Province's potentialities as a major source of crude oil supply. They account also for the increase in the value of Alberta's mineral production from \$51,753,237 in 1945 to a record \$173,230,766 in 1951.

Aside from the oil developments (*see pp. 524-527*) the most important development has been the disclosure of huge reserves of natural gas, most of which has been found in the course of drilling for oil. Only to a limited extent so far has natural gas been made the primary objective of exploratory work and it is generally agreed that much larger quantities remain undiscovered. Most estimates of present reserves range as high as 10,000,000,000 Mcf., though some estimates are much higher.

The question of export of natural gas from Alberta has been under consideration for several years. It involves the problem of preserving a volume of gas sufficient for Alberta's needs for an extended period of years, and of proving a reserve in excess of this amount that will be large enough to justify the expenditures necessary to construct long-distance transmission lines. Recently the Alberta Government decided against the adoption of a policy permitting the general export of gas, the basis for the decision being that sufficient reserves have not been disclosed

to warrant such a policy at this time. However, the Government has granted the West Coast Transmission Company Limited permission to export a stipulated volume of gas from the Peace River area over a period of years and the Company plans to construct a pipe line from the area to Vancouver.

About 95 p.c. of Alberta's output of natural gas comes from five fields—Turner Valley, Viking-Kinsella, Leduc, Jumping Pound and Medicine Hat-Redcliff—all of which are connected by pipe line to local markets. Discoveries of commercial importance were made here and there throughout the Province in 1951, some of which resulted in important extensions to previously known fields, particularly around Medicine Hat, Provost and Bonneyville, while others resulted in the establishment of potential new gas areas. Many of the discoveries were capped pending market outlets. Production in 1951 reached a record 64,112,000 Mcf., compared with 58,604,000 Mcf. in 1950.

In some of the fields the natural gas has a relatively high content of hydrogen sulphide and this has led to the construction of plants by two companies to recover elemental sulphur from the gas in these fields. One of these, Royalite Oil Company Limited, has a \$350,000 sulphur plant at Turner Valley which will have a capacity of about 10,000 tons of elemental sulphur a year. Shell Oil Company of Canada Limited brought a plant of the same capacity into operation early in 1952 at Jumping Pound.

Besides being by far the leading Canadian producer of crude oil and natural gas, Alberta is well in the lead also in the production of coal and in 1951 contributed about 41 p.c. of the total Canadian output. About 60 p.c. of the output of 7,750,000 tons was bituminous and 39 p.c. sub-bituminous and lignite, mainly the former.

Strip mining of the coal is being practised to an increasing extent and at present about 40 p.c. of the output is so mined. The reduced labour requirements for this method are apparent from the fact that the average output from strip-mining operations per man-day in 1951 was 9 tons compared with 3.49 tons from underground mining. The continued development and improvement of the machinery used in strip mining has greatly increased the available coal for stripping and has increased the ratio of coal that may be stripped within economic limits.

In Alberta, as elsewhere in Canada, the coal industry has been continuing its efforts to improve the quality of its products. To this end, fluidized dryers for drying fine coal have been successfully introduced in the Province, with three such units in the Crowsnest area and one in the Mountain Park area. Pneumatic cleaning plants have been installed in the Coalspur and Drumheller areas, and in the Nordegg area a complete new plant has been constructed to clean all sizes retained on a quarter-inch screen. All the output of the plant is briquetted for railway locomotive and domestic use.

In value, crude petroleum, coal and natural gas, in that order, accounted for close to 95 p.c. of Alberta's mineral output in 1951 and cement, sand and gravel, and clay products for most of the remainder. The ordinary red-burning brick and structural and drain tile are produced from clays and shales obtained within the Province; the higher grade products such as sewer pipe, pottery and stoneware are made from Saskatchewan clays.

Saskatchewan.—Mining and related developments have also been active in Saskatchewan, particularly in connection with uranium and crude petroleum. As a result of the numerous discoveries of uranium ores, Saskatchewan bids strong to become a leading world source of these much-needed ores. The discoveries are in

three distinct areas. Two of these lie in the Lake Athabaska region in a belt that extends from the vicinity of Goldfields easterly along the north shore of the Lake and beyond to Charlebois Lake. Those near Goldfields cover an area of approximately 20 sq. miles, the other discoveries being in the vicinity of Sucker Bay, in the Middle Lake-Black Lake area, and in a fairly large area north of the east end of Black Lake to Spreckley Lake. The third area lies north of Lac La Ronge, which is linked to Prince Albert by a 175-mile gravel highway. Although Eldorado holds most of the ground being explored at present, a number of other companies are active in each of the areas. An estimated \$10,000,000 was spent in Saskatchewan in 1951 on the exploration and development of uranium deposits and indications are that expenditures in 1952 will be much higher.

The uranium developments are highlighted by the multi-million dollar construction program of the Crown-owned Eldorado Mining and Refining (1944) Limited at its Ace Property in the Goldfields area. The mill being erected is expected to enter production early in 1953 and, in addition to treating the ore from the property, is designed to serve as a custom plant for ores from other properties, one purpose of this being to encourage the development of uranium prospects. Use will be made of a new acid leaching process which gives a higher recovery and which was developed in the laboratories of the Federal Department of Mines and Technical Surveys.

Exploration for crude oil in the southern part of the Province has reached record levels and, in 1951 alone, close to \$20,000,000 was spent in the search for new sources of supply, an amount more than double that spent in 1950 on similar work. There was comparatively little activity in connection with natural gas in Saskatchewan until 1951 when four important discoveries were made in the west-central portion of the Province in the vicinities of Brock, Coleville, Dodsland and Elrose, and some wells have been added since. To encourage the search for natural gas the Provincial Government has announced that a year from the date a total of 200,000,000 Mcf. has been disclosed in these areas it will buy the production for delivery.

Saskatchewan is increasing steadily in importance as a producer of metals and minerals, the chief contributors to its mineral production being copper, zinc, gold, silver, coal, sodium sulphate, and sand and gravel. Much the greater part of its production from the value viewpoint comes from the large copper-zinc deposits of Hudson Bay Mining and Smelting Company Limited that straddle the Manitoba-Saskatchewan boundary. In 1951 the Company's production accounted for about 77 p.c. of the total value of Saskatchewan's mineral output which in that year reached a record \$50,907,504.

In the production of coal, the almost complete changeover during the past 15 years from underground operations to strip mining is a major development, particularly in view of the marked reduction in cost and of the close to fourfold increase in productivity per man-day. Both these factors are especially important under the competitive conditions arising from the crude oil and natural gas developments in Western Canada. In 1951 about 98 p.c. of the coal produced was from strip-mining operations. All the coal mined is lignite and most of it comes from the Estevan area in southeastern Saskatchewan. Nearly 65 p.c. of the output is shipped to Manitoba for domestic and industrial use. Recent estimates place the recoverable reserves of lignite at 12,000,000,000 tons.

Demand for Saskatchewan's output of sodium sulphate, particularly by the pulp and paper industry, has been outstripping supply despite a production increase of 45 p.c. in 1951 compared with 1950. In line with increased demand, prices at Saskatchewan plants moved upward on non-contract sales during the year. Exports showed an increase of 97 p.c. to 56,000 tons. Sources of the output are the large reserves of sodium sulphate that occur in highly concentrated brines and in alkali lakes in southwestern Saskatchewan, the only Canadian producer of the mineral.

The Province is also abundantly supplied with stoneware, fireclays, and ball-clays. However, its production of clay products is relatively small, amounting to only \$573,000 in 1951. There are various reasons for this, the main being that because of transportation costs the market is largely limited to the Prairie region. Stoneware clay is selectively mined in the Eastend area and is shipped to Medicine Hat, Alta., where, owing to the availability of cheap natural gas, it is used extensively to make a wide variety of stoneware articles, sewer pipe and pottery. The Provincial Government has undertaken an extensive program of exploration of the ball and other clay resources, in the hope that markets for such clays will develop in Eastern Canada and in the United States.

Manitoba.—Much of the post-war interest in mineral developments in Manitoba has been centred in the operations at Lynn Lake, 500 miles north of Winnipeg, where Sherritt Gordon Mines Limited has been busily engaged in preparing its large deposits of copper-nickel ore for production, which is expected to commence by the end of 1953. Development of the power sites on the Laurie River to supply hydro-electric energy to the Lynn Lake operations is well advanced and construction by the Canadian National Railways of the 147-mile railroad from Sherridon to Lynn Lake is progressing. The line is being built at an estimated cost of about \$15,000,000. Work on the design of the chemical metallurgical plant which is to be located at Fort Saskatchewan, 15 miles northeast of Edmonton, has been commenced and construction is scheduled to begin during the second quarter of 1952. The plant will be within easy reach of an adequate supply of water and natural gas. Present plans call for the treatment of 2,000 tons of ore a day with an estimated output of 8,500 tons of nickel and 4,500 tons of copper annually. Ore reserves in excess of 14,000,000 tons have been outlined. Meantime the Sherritt Gordon operations at Sherridon have come to an end and the mining plants, concentrator, and employees' houses are being moved to Lynn Lake.

The main development at the Flin Flon operations of Hudson Bay Mining and Smelting Company Limited has been the bringing of the new slag-fuming plant into continuous operation. This will enable the Company to increase its production of zinc to 65,000 tons a year from the present 50,000 tons and at the same time reduce the tonnage of ore mined, as the compensating production will come from the zinc plant residue. This Company in 1950 accounted for about 15 p.c. of Canada's output of zinc and about 15 p.c. of the output of copper and is also an important producer of cadmium, selenium, gold and silver, which are recovered as by-products. Aside from the slag-fuming plant, its facilities include a concentrator with a capacity of 6,300 tons a day, an electrolytic zinc refinery and a copper smelter. The Company ships its blister copper to Canadian Copper Refiners Limited, at Montreal East, for refining. It has been carrying out underground development work at its nearby Schist Lake mine and has a number of other

operations within a 20-mile radius of Flin Flon, including the Cuprus mine which is producing on a small scale, and several properties where exploratory work is proceeding.

There have been few major changes since the War in Manitoba's gold industry, one of the main developments being the entry into production of the Nor-Acme mine in the Snow Lake area in March 1949. The property is being operated on a lease basis by Howe Sound Exploration Company Limited, and is equipped with a 2,000-ton mill. This Company and San Antonio Gold Mines Limited, in the Rice Lake area, are the only quartz-gold producers in the Province at present, output from the Ogama-Rockland mine having ceased in June 1951. Gold production reached a peak of 191,725 oz t. in 1950, but declined to 162,257 oz t. in 1951. Over 78 p.c. of the 1951 output was from quartz gold mines, the remainder being recovered as a by-product of the base-metal operations at Flin Flon.

Little of interest has occurred since the War in connection with the large deposits of chromite in the Bird River area. Federal Government and other metallurgists have worked out methods of treating the ore that would be applicable in the event of an emergency, but would possibly not prove economical under present competitive conditions. The high iron content poses a difficult metallurgical problem. However, the deposits are not being overlooked and several companies have been active in the area.

Metal production accounted for about 75 p.c. of Manitoba's total 1951 output of minerals valued at \$28,398,000. The chief non-metallics produced, in order of value of output, were: cement, sand and gravel, clay products, stone, gypsum and salt.

Ontario.—Ontario has held first position in Canadian mineral production for close to half a century and still holds this lead by a wide margin. The value of its mineral production has increased from a lowly \$86,000,000 in 1932 to \$217,000,000 in 1945, and to a record \$437,000,000 in 1951.

Gold, nickel and copper accounted for over 71 p.c. of the total value of its mineral output in 1951 and metals as a whole for about 83 p.c. Sand and gravel, clay products, cement, gypsum, salt, quartz, mica and, since 1950, asbestos are the principal non-metallic minerals produced. Ontario produces all of Canada's output of nickel, the platinum metals, cobalt and nepheline syenite, most of the copper, gold, iron ore, salt and mica, and large percentages of several other metals and minerals.

Most of the major developments in the mineral industry since World War II have been in connection with iron-ore operations in the Steep Rock area, 140 miles west of Port Arthur, and in the Michipicoten area, and with nickel-copper operations in the Sudbury area. Of great importance also has been the establishment of an asbestos industry in the Matheson area in northern Ontario.

The importance of the iron-ore developments requires little comment, especially when it is realized that for many years prior to the War Ontario produced no iron ore and that at no time was the production large. The discovery of large deposits of hematite ore in the Steep Rock area has changed the picture completely, for Ontario now shows promise of becoming a major world source of iron ore.

The first shipments were made from the deposits in 1944, but at that time comparatively little was known of their extent or potentialities. Much of this knowledge has since been gained and, as the Steep Rock Iron Mines Limited

states in its recent annual report, it has become increasingly evident that the several ore deposits on its properties are extensive in area and that they are likely to persist to great depths. Ore potential has been estimated at as much as 500,000,000 tons per 1,000 feet of depth.

All the output from the deposits to date has come from open-pit operations at the Errington mine, but the Company is currently making a complete changeover to underground operations at this mine and is preparing its Hogarth mine for open-pit operations. Discussing the outlook, the Company expresses the view that full exploration of its deposits will justify production in excess of 10,000,000 long tons annually over a period of many decades. Practically all of the output, which amounted to 1,486,000 long tons in 1951, is exported to the United States.

Developments in the Michipicoten area also point to a substantial increase in iron-ore production in the years ahead. The Helen mine of Algoma Ore Properties Limited continues to be the only producer, but there are several other properties in the area available for development. Indicated reserves on some of these are in excess of 100,000,000 tons. The ore in the area is siderite and requires sintering to bring it up to commercial grade. The Helen ore is relatively high in manganese and accordingly is much in demand. About two-thirds of the output is exported to the United States and the remainder is used by Algoma Steel Corporation, the parent company. Production of sinter from the Helen mine increased from 504,534 long tons in 1945 to 1,188,842 long tons in 1951.

Meantime, the search for iron ore has spread to eastern and central Ontario, portions of which are underlain by iron-bearing rocks. The most advanced operation is at Marmora about 40 miles east of Peterborough where Bethlehem Steel Corporation has been preparing for production a magnetite deposit that was discovered in 1949 as a result of an airborne magnetometer survey conducted by the Geological Survey of Canada at the request of the Ontario Department of Mines. Production is scheduled to commence in 1954 at an initial rate of 400,000 tons of concentrate a year. The concentrate will be shipped to the Company's plant near Buffalo via Pictou on Lake Ontario.

During the past ten years, the International Nickel Company of Canada Limited, long the source of over 80 p.c. of the world's output of nickel and a leading producer of copper, has been pushing forward its major program of changing over entirely to underground mining from the present open-pit and underground operations in the Sudbury area. This program is scheduled for completion by the end of 1953 and will enable the Company to hoist 13,000,000 tons of ore a year which is 5,200,000 more than the record tonnage hoisted from underground in 1951. In a related major development, the Company in 1951 brought into regular production the lower grade portion of its Creighton mine, employing new low-cost caving methods. This has involved the sinking of a shaft, construction of a crushing plant and concentrator, and construction of the pipe line to carry the resultant concentrate to Copper Cliff.

On the metallurgical side, the Company has completed the construction of a special type of smelting furnace which will use oxygen for the flash smelting of its copper concentrates in place of pulverized coal. This will permit not only a considerable reduction of cost but will also make possible a greater utilization of sulphur in the form of liquid sulphur dioxide from the smelter gases. The International

Nickel Company of Canada has also held first position as a producer of the platinum metals for the past several years and has spent in excess of \$100,000,000 since the War in conversion and expansion programs.

Falconbridge Nickel Mines Limited, Canada's only other producer of nickel, has also been expanding its operations. The Company obtains most of its copper-nickel ore from its Falconbridge mine and the remainder from its McKim mine, which was brought into production a few years ago. It is now preparing its Hardy mine for production at a 1,000-ton-per-day rate. Matte from the smelter at Falconbridge is shipped to the Company's refinery in Norway for recovery of the metals.

Rising costs of labour, supplies, equipment and services have had an adverse effect on Ontario's gold industry. However, production of the metal increased from 1,625,368 oz t. in 1945 to 2,445,902 oz t. in 1951, but the latter was slightly lower than in 1950 and was far below the peak production of 1940. In comparison with 1945, output from the Porcupine camp in 1951 increased by approximately 27 p.c.; from the Kirkland Lake camp by approximately 23 p.c.; Larder Lake, 226 p.c.; Matachewan, 19 p.c.; Patricia, 149 p.c.; and Thunder Bay, 177 p.c. Production of gold from base-metal operations totalled 40,640 oz t. in 1951.

Comparatively few new gold producers have been added to the list during the past six years and production of some of the established producers has been curtailed to a varying degree. Federal Government cost-aid, which came into effect at the commencement of 1948, has been a stabilizing influence and by Dec. 31, 1951, had reached a total of \$19,140,486 for Ontario. This assistance has been of chief benefit, of course, to the higher cost and marginal mines.

Of special interest is the recent activity in the Cobalt-Gowganda area both in relation to silver and cobalt. This once-famous area, which in 1911, the peak year, recorded a silver output of 31,507,791 oz t., appeared for a time to have faded from the picture as an important contributor to Ontario's mineral output. But the urgent need for cobalt in post-war industry and for defence purposes, coupled with the rising price of silver, caused attention to turn again to the camp and there has been a steady increase in activity since 1949. Production of silver from the camp increased from 476,335 oz t. in 1945 to approximately 4,000,000 oz t. in 1951.

The production of cobalt in the area is closely linked with that of silver. Cobalt became one of the scarcest of metals in 1951 owing to its increasing use in jet engine alloys, armour plating, as a binder in the manufacture of cemented carbide tools, in high operating temperature engines and in permanent reagents for electronic use. As a means of stimulating production, the Federal Government raised substantially the price of cobalt contained in cobalt ores. Cobalt occurs in minor amounts in the copper-nickel ores of the Sudbury area and is recovered from the residues of the electrolytic refining of nickel.

The addition of asbestos to the list of non-metallic minerals produced in the Province is a major post-war development. The main discoveries of this mineral have been in the Matheson area and exploratory work indicates that they are extensive. Output commenced in 1950 and in 1951, the first full year of operation, amounted to 26,100 tons. The asbestos is of a type well suited to the manufacture of asbestos cement now in great demand in Canada.

Nepheline syenite, salt, quartz, gypsum, mica, fluorspar, clay products, cement, lime, stone and crude petroleum round out the list of minerals produced in Ontario. The Province has the distinction of being the only present-known source of nepheline

syenite outside of the U.S.S.R. The output in Ontario is obtained from extensive deposits in Peterborough County. Most of Ontario's large output of salt is used to supply its expanding chemical industries and is obtained from wells drilled 800 to 1,500 ft. below the surface at Goderich, Sarnia, Warwick and Sandwich.

Quebec.—Mining in Quebec has been forging ahead at a feverish pace during the past number of years. Mineral production has climbed in value from \$86,313,491 in 1940 to \$91,518,120 in 1945 and to an all-time high of \$250,000,000 in 1951. In value the output in 1951 was almost evenly divided between the metallic and the non-metallic minerals, the latter being in the lead. Quebec was an important producer of the non-metallic minerals long before it had acquired any prominence as a producer of metals. In fact, metal output was relatively small prior to 1927, when the Noranda mine was brought into production, but has increased from a value of \$13,914,000 in 1932 to a record \$120,201,000 in 1951. However the indications are that, in value of output, the metals will soon overtake the non-metallic minerals mainly as a result of the iron-ore developments in the Quebec-Labrador region. Production from these iron-ore deposits is scheduled to commence in 1954. At present, asbestos is the chief single contributor to Quebec's mineral output.

The record of mining expansion in Quebec since the War is largely a record of pace-setting developments in connection with iron ore and titanium. These have gained an international prominence and thus stand out in relation to the others, several of which are also of importance.

The story of the iron-ore developments is by now fairly familiar to most Canadians. The discovery of the Sawyer Lake deposit in 1937 and of that at Burnt Creek in 1938 marked a major turning point in Quebec's mining history. Close to 420,000,000 tons of hematite ore has been proved to date in the deposits that have been explored and much ground still remains to be explored. Already over \$50,000,000 has been spent in preparing the deposits for production and a further estimated \$150,000,000 will be spent to bring the work to completion. Construction of the 360-mile railway has been started at both ends, and will be about half completed by the end of 1952. Work is proceeding on two hydro-electric power sites, one on the Menihek River about 30 miles south of the deposits and the other on Marguerite River about 20 miles north of the ore terminus. Altogether about 3,800 men are employed on the various construction and other projects, 2,300 of whom are engaged on the railroad construction.

Initially, production from the deposits will be at an annual rate of 10,000,000 tons which may eventually be extended to 20,000,000 tons. In any case there will be a large surplus of ore beyond Canadian needs. The marketing of this surplus is not likely to prove difficult in view of the steadily increasing demand for iron ore throughout the world and of the rapid rate of depletion of the high-grade ore in the Mesabi Range.

In the meantime the production of titanium ore in Quebec has become an established industry. In 1950, the first year of operation, 100,000 tons were shipped and in 1951 shipments increased to 372,000 tons. The deposits, discovered in 1946, are in the Allard Lake area 27 miles north of Havre St. Pierre on the north shore of the Gulf of St. Lawrence and, so far as is known, are the largest of their kind in the world. They are owned by Quebec Iron and Titanium Corporation which ships the ore to its smelter at Sorel, Que., where it is treated to produce low-carbon iron and a titanium dioxide slag. The iron is desulphurized, cast into ingots,

and is sold as high-grade iron. At present only one furnace is in operation in the plant but two others are nearing completion and two more are to be built. The smelter, when completed, will have a rated daily capacity of 500 tons of iron and 700 tons of titanium dioxide slag.

Not so many years ago Noranda Mines Limited accounted for all but a small part of the output of base metals in Quebec. However, a few other mines in that section began contributing and then, with the sharp rise in the prices of copper and zinc, more followed, each in turn expanding its operations. The high prices also caused attention to turn to the Eastern Townships and to other areas that had remained largely inactive for years.

Recently, large deposits of zinc and silver have been disclosed at the Barvue mine east of Amos in Barraute township. Close to 18,000,000 tons of zinc-silver ore has been outlined at the property to a depth of 700 ft. and a mill capable of handling over 5,000 tons of ore a day is scheduled to enter production by the middle of 1952. This development appears to be shaping up as one of the largest zinc operations in the country, with an anticipated output of more than 35,000 tons of zinc annually when full operation is reached.

A number of other properties have also appeared in the picture: the East Sullivan and Quemont mines in western Quebec, which entered production in 1949; the Moulton Hill and Suffield mines in the Eastern Townships, both of which are operated by Ascot Metals Corporation Limited; the Anacon mine about 70 miles west of Quebec city; and Noranda's copper property in Gaspé Peninsula which its subsidiary, Gaspé Copper Mines Limited, is now developing toward production. The latter, located across the St. Lawrence from the port of Seven Islands, appears also to be developing into a major enterprise. The grade of the ore is relatively low but the reserves are presently estimated to be in excess of 70,000,000 tons, which would be sufficient to maintain operation for many years. Plans call for production of 5,000 tons of ore daily, commencing in about five years; when in full production this property will increase Quebec's copper output by about 25,000 tons a year. An estimated \$8,000,000 will be required to bring the mine into production.

The revival of interest in the Chibougamau area, 210 miles northeast of Noranda, is also of considerable significance. Earlier development of this area was handicapped by lack of suitable transportation and low metal prices, but these obstacles have been overcome and there is also reasonable assurance of a supply of hydro-electric power needed for the various operations. Several companies are engaged in exploring copper-gold deposits here and there throughout the area and work on some of the prospects is sufficiently advanced to warrant consideration of mill construction.

What the future may bring in the way of further important discoveries will depend largely upon the continuance or otherwise of the present demand. The consideration being given currently to the erection of a zinc refinery in the Province is indicative of the optimism that prevails in reference to the outlook for the base metals. One of the largest copper refineries in the British Commonwealth and Empire is located at Montreal East, but it is only recently that the production of zinc has reached the point where a zinc refinery seems warranted.

In terms of value of output, and exclusive of the fuels, Quebec in 1951 accounted for approximately half of Canada's production of the non-metallic minerals, and asbestos in turn accounted for 58 p.c. of the Province's output of these minerals. Quebec's output of 941,268 tons of asbestos valued at \$75,000,000 was about 95 p.c. of the Canadian total for 1951 and about 70 p.c. of the world total.

Quebec's asbestos industry, located in the Eastern Townships, has shown great expansion since the War as a result of widespread demand. Present plans call for extensive expenditures for the enlargement of plants and for the exploration and development of deposits. Canadian Johns-Manville Company Limited, the leading producer, is rebuilding the mill at its Jeffrey mine at an estimated cost of \$14,000,000; Asbestos Corporation is developing its new Normandie mine in the Black Lake area toward production in a program that will ultimately cost in the neighbourhood of \$10,000,000; and Johnson's Company also has a large expansion program on hand, including plans for the construction of a new mill at its Black Lake property at an estimated cost of \$16,000,000.

Few changes of outstanding importance have occurred since World War II in reference to the other industrial minerals produced in Quebec. The demand for most of these minerals has been exceptionally strong, particularly for cement, clay products, sand and gravel, and stone of which Quebec is a leading Canadian producer. Most plants have been operating at or near capacity.

New Brunswick.—Although the value of mineral production in New Brunswick increased from \$4,182,100 in 1945 to \$10,282,408 in 1951, few changes of outstanding importance have occurred since the War in the general mining picture. Coal mining has long been the core of the Province's mineral industry, and coal the principal mineral product. Output comes from the Minto-Chipman field in the south-central part of the Province, the field's single seam lying close to the surface over a large area.

The output of coal has been rising steadily during the past few years, reaching a new high of 650,000 tons in 1951. Much of this has been due to the increased use of heavy strip-mining equipment and in 1951 about 68 p.c. of the coal produced was strip mined. Over 90 p.c. of the total output is used locally by the railways and other industry.

Structural materials, including clay products and gypsum, peat moss, natural gas, and a minor output of crude petroleum, comprise the remainder of the Province's mineral output. Gypsum is produced in the Hillsborough area of Albert County where Canadian Gypsum Company Limited, the only producer, operates two quarries and a mine and manufactures wallboard, gypsum lath, plaster and allied products. The Maritime Provinces realized their first production of cement when the new plant of Maritime Cement Company Limited, a subsidiary of Canada Cement Company Limited, entered production at Havelock in New Brunswick early in 1952. The plant has a capacity of 800,000 bbl. a year.

Large areas of granite of suitable grain and colour for both structural and monumental purposes are found in the Province. Red granite is produced in the St. George and Bathurst districts, black granite in the Bocabec district, and grey and bluish-grey granite in the Hampstead area.

For a number of years natural gas and crude petroleum have been produced from the Stony Creek field in the southeastern part of the Province, and Moncton, Hillsborough, and other localities in Albert and Westmorland Counties obtain their supplies of natural gas from this source. Production of these two fuels has declined steadily, however, during the past few years.

Considerable interest has been shown recently in some of the base-metal occurrences and over 20 companies are engaged in the search for these metals. Most of the activity has been in Gloucester and Restigouche Counties, and particularly in the Rocky Brook-Millstream field where there are known occurrences of copper, lead, zinc and silver.

Nova Scotia.—The marked growth of interest and activity in the various fields of mineral endeavour across Canada has been reflected within the mineral industry in Nova Scotia in the extensive mechanization and modernization under way in the mining of coal, the principal mineral product, and in the expansion in production of industrial minerals, particularly gypsum and barytes. Interest has also been revived in the Province's base-metal deposits which have as yet remained largely undeveloped. Mineral production as a whole increased in value from \$32,220,659 in 1945 to \$59,387,855 in 1951, coal accounting for over 83 p.c. of the value of output in 1951.

Coal mining has long been a major industry in the Province and has been carried on for over 200 years. The main fields are those at Sydney and Inverness in Cape Breton Island, and at Pictou and Cumberland on the mainland. The coal comes from Pennsylvanian strata and is all of bituminous rank. Much of it is suitable for the production of coke and gas and, in addition, is a good steam coal. Production ordinarily supplies the railroads of the area, the local steel industry and the domestic market, as well as part of the fuel requirements of the Province of Quebec.

Mechanization of the coal mines has proceeded rapidly, the chief mines being now fully mechanized, except in certain cases, for loading coal into mine cars. The Dominion Steel and Coal Corporation Limited has developed a coal-cutting and loading machine designed to dig and load 500 tons of coal in eight hours. This Company is carrying out a \$7,000,000 mechanization and mine development program. Bras d'Or Company Limited, which was the first company in the Province to complete the mechanization of its workings, has installed a coal-cleaning plant, the only one of its kind in Canada.

Extensive research on coal is being carried out in Nova Scotia by the Federal and Provincial Governments. A thorough scientific study of coal has been undertaken as well as studies of rope haulage and methods of rope socketing in the coal mines.

Industrial minerals are playing an increasingly important role in the Province's mineral production. Nova Scotia is the leading Canadian producer of barytes and gypsum, producing in 1951 over 98 p.c. and 84 p.c., respectively, of the entire Canadian output of these minerals. Canadian Industrial Minerals Limited accounts for practically all of the barytes produced in the Province from its deposit at Walton, Hants County. Production consists of crude barytes for the chemical trade and ground barytes for industrial filler and drilling mud. Ground white barytes will be added to the output upon completion of the mill of Maritime Barytes Limited

on its deposit at Brookfield in Colchester County. The Province's output of barytes in 1951 totalled 83,270 short tons valued at \$813,640 compared with the peak production of 125,760 short tons valued at \$1,353,705 in 1947.

Gypsum is produced in Victoria County on Cape Breton Island and in Hants County on the mainland where Canadian Gypsum Company Limited, the largest Canadian producer, operates large quarries at Wentworth near Windsor. Production in 1951 totalled 2,829,336 short tons valued at \$3,926,465. Approximately 5,000 tons of the Province's output is processed locally and the remainder is exported in crude form, mainly to the United States.

Nova Scotia is next to Ontario in the production of salt and its output consists of both mined rock salt and fine vacuum salt. The only salt mine in Canada is operated at Malagash in Cumberland County by Malagash Salt Company Limited. The mined rock salt is sold chiefly as a de-icing salt for roads and railways. Fine salt from vacuum pan evaporators is produced near Amherst by Dominion Salt Company Limited from a brine obtained from massive salt beds which come within 860 feet of the surface at this point. Salt production reached a peak of 125,236 short tons valued at \$1,223,253 in 1951.

Other industrial minerals produced include granite, sandstone, limestone, dolomite, diatomite, silica rock and clay products.

There is no base metal production at present in Nova Scotia, but Mindamar Metals Corporation Limited is preparing the old copper-lead-zinc Stirling mine in Richmond County for production in 1952. Geophysical surveys and extensive diamond drilling are under way on lead occurrences at Smithfield in Colchester County, and at McAdam Lake in Cape Breton County, and copper and lead occurrences in other parts of the Province are being investigated.

Newfoundland.*—Comparatively little is as yet known of what Newfoundland has to offer in the way of mineral wealth. Until entry into Confederation in 1949, only a minimum of exploration had been carried on and whole areas remained unexplored despite the fact that operations at the Province's only two metal-producing properties, the zinc-lead-copper mine of Buchans Mining Company Limited and the Bell Island iron mines of Dominion Wabana Ore Limited, have proven highly successful over the past several years.

Exploratory activity is now fairly widespread; it is greatest in central Newfoundland and in the region extending through to Notre Dame Bay on the east coast. Falconbridge Nickel Mines Limited, with headquarters at Gull Lake in the centre of the Island, where it plans to sink a shaft on a copper property, is continuing the exploration of its copper holdings at Tilt Cove and at Rambler and Springdale. Buchans Mining Company Limited is carrying out extensive drilling on its concessions in the central and southwestern sections of the Province. In Notre Dame Bay, Pilleys Island Copper Pyrites Limited is continuing development work on its holdings on Pilleys Island. Over on the west coast, Independent Mining Corporation is re-examining the old York Harbour copper-zinc mine on Bay of Islands, while Cape Copper Company Limited is continuing to drill its holdings at Gregory River. North of Port au Port interesting results have been obtained on an asbestos property at Bluffhead.

* For developments in the Quebec-Labrador iron-ore field see p. 487.

Production of iron ore from the Wabana mines reached a peak of 1,788,000 tons in 1951. Dominion Wabana Ore Limited is a subsidiary of Dominion Steel and Coal Corporation Limited and approximately 50 p.c. of its production is shipped to that Company's steel mills at Sydney, N.S. The high sulphur and phosphorus content of the ore prohibits its use in other Canadian steel mills and the remaining production goes to the United Kingdom, western Germany and the United States. The Company, in 1950, contracted to supply the United Kingdom with 1,200,000 tons and Germany with 560,000 tons each year for five years until 1956, and to meet these commitments a \$6,000,000 expansion and modernization program has been undertaken which will double the Wabana productive capacity by late 1952. It involves interconnecting the Company's four mines and hoisting ore through one slope only, by means of a continuous belt-conveyor system.

Buchans Mining Company Limited is busily engaged in developing its new Rothermere orebodies on its property five miles north of Red Indian Lake in central Newfoundland. Output, which is scheduled for late in 1952, is expected to add considerably to the Company's production, which in 1951 amounted to 324,000 tons and from which 58,910 tons of zinc concentrate, 28,070 tons of lead concentrate, and 12,424 tons of copper concentrate were produced.

Newfoundland has extensive reserves of fluorspar and accounts for almost 93 p.c. of Canadian production. All the commercial fluorspar veins occur in the vicinity of St. Lawrence, a town on the south coast. Over 24 veins have been located, and fluorite mineralization is known to extend as far as three miles longitudinally and to depths of over 500 feet with no significant changes being noted in grade and width.

Since the initial development of the deposits in 1932, output has increased steadily, multiplying tenfold since 1937 to over 80,654 short tons in 1951. St. Lawrence Corporation Limited, by far the larger of the two producers, turns out one of the highest grade concentrates in the world, selling its output to the steel and chemical industries of Canada and United States. Remaining production comes from Newfoundland Fluorspar Limited, a subsidiary of Aluminum Company of Canada Limited, and is used mainly in the manufacture of aluminum.

Other mineral production is confined to limestone and structural materials, including clay products. Limestone is quarried at Aguathana on the north side of St. George's Bay. Part of the production is shipped to Sydney, N.S., where it is used as a flux in the steel industry and part is used locally for building and agricultural purposes. Brick clay deposits are worked on Trinity Bay, while granite is quarried on the south coast at La Poile and Rose Blanche. There are numerous occurrences of marble along the west coast and in the region of White Bay on the east coast where it is quarried at Purbeck Cove and Sops Arm.

Gypsum suitable for quarrying occurs along the west coast and in 1951 the Provincial Government, as part of its development program, erected two factories at Humbermouth for the production of gypsum plaster and plaster board and lath, the raw material to come from a deposit at St. George's Bay. The plaster plant has a capacity of 200 tons daily while the wallboard and plaster lath plant is capable of turning out 250,000 sq. ft. of wallboard a day or 285,000 sq. ft. of plaster lath.

Yukon Territory.—Interest in mining in Yukon has turned sharply upwards and since 1947, when production from the deposits commenced, the Territory has been witnessing a new wave of mineral exploration and development. The

Noranda Mines Limited and Hudson Bay Mining and Smelting Company Limited have been playing important roles in this development, particularly in connection with the exploration of lead-zinc deposits.

For a number of years prior to 1947, mining had been decreasing rapidly and, although placer gold operations in the Klondike area were maintained at a high level, lack of suitable transportation and of a supply of hydro-electric energy had all but discouraged the outlay of capital in the exploration and development of properties in other areas. The success of operations in the Mayo area pointed up the need for a highway to connect Whitehorse and Mayo, the construction of which was completed by the Federal Government a few years ago. Thus, improved transportation, together with power prospects contingent upon the development of a power site on the Mayo River which is scheduled for completion before the end of 1952, and high metal prices have provided much of the incentive needed to encourage capital expenditures in the search for and development of mineral deposits.

At present, the Mayo area is exceptionally active and a number of companies are engaged in appraising the mine-making possibilities of their holdings. From the commencement of its operations until the end of 1951, United Keno Hill had produced concentrates containing about 39,000,000 lb. of lead, 16,000,000 lb. of zinc, and close to 11,000,000 oz t. of silver. The Hector mine has been the principal source of ore, but the Company has been carrying out considerable preproduction development on its Onek mine about four miles east of the Hector and plans to build a 300-ton mill on this property. The silver-lead-zinc concentrates are shipped to Trail, B.C., for smelting and recovery of the three metals and of cadmium which occurs in association with the ores. United Keno Hill accounts for practically all the production from the area but several other properties show promise.

Although the glamorous days of the far-famed Klondike rush have long since passed, placer gold operations in Yukon Territory seem likely to continue. Recent estimates place Yukon Consolidated Gold Corporation gravel reserves well in excess of 100,000,000 cu. yd., sufficient for many years of operation on the present scale. In 1951 it had seven dredges in operation compared with eight in the previous year, which accounts for the decline in the value of its gold output from \$2,540,000 in 1950 to \$1,907,000 in 1951. The Company is by far the largest producer of placer gold in the Territory.

Coal is the only other mineral produced in Yukon where the output is small, amounting to only 3,470 tons in 1951, all of it being from the Carmacks area. However, some shipments of wolframite, an ore of tungsten, are expected to be made during the summer of 1952 by Yukon Tungsten Corporation, which acquired ground in 1951 along the Alaska Highway about five miles north of Mile 701.

Northwest Territories.—Considering that as recently as 1932 the value of mineral production from this vast region with a land area of 1,253,438 sq. miles was only slightly more than \$21,000, the increase in the value of output to \$8,229,681 in 1951 is truly impressive, the latter amount being exclusive of pitchblende products, which are not reported. Aside from these products, the mineral output consists entirely of gold, crude petroleum, silver and natural gas, the value of the gold output in 1951 being about 94 p.c. of the total. It is interesting to note that the value of mineral production in the Northwest Territories in 1945 was only \$471,000, exclusive of pitchblende products.

Although early explorers reported the occurrence of minerals in various sections of the Northwest Territories, it was not until 1920 when crude oil was discovered at Norman Wells, about 100 miles west of Great Bear Lake, that much serious attention was given to the possibilities of the Territories as a source of mineral wealth. This development aroused considerable interest for a time but little of importance happened until 1930 when Gilbert La Bine reported the discovery of pitchblende deposits at Echo Bay on the east shore of Great Bear Lake. This historic event actually gave mining its start in the Territories and, along with the advent of the aeroplane, paved the way for the developments that have followed.

Attention soon turned to gold and before long various discoveries of this metal were made in the Yellowknife area. The first gold brick was poured in 1938 and gold mining has since become a well-established industry in the area, being the main source of livelihood for the 2,724 persons of Yellowknife Settlement. By 1945 production of gold from the area had reached an annual value of \$333,218, and in 1951 had increased to \$7,755,119. Giant Yellowknife Gold Mines Limited with an output of 107,000 oz t. in 1951, is by far the largest producer, the others being Con, Rycon, Negus and Discovery Yellowknife.

Exploratory interest in the Territories is at present concentrated on the search for base metals, petroleum, natural gas and uranium. In connection with the base metals, the search is centred in the Pine Point area on the south shore of Great Slave Lake where the Consolidated Mining and Smelting Company of Canada Limited has been doing exploratory drilling on a large zinc-lead deposit to determine whether there is sufficient ore to warrant further development of the property. There has been considerable prospecting for base metals also in the O'Connor Lake area where American Yellowknife Gold Mines Limited has outlined a medium-sized deposit reported to contain 15 p.c. combined lead and zinc.

The present interest in crude petroleum constitutes a spreading of activity from Alberta northward. Most of the activity is in the Fort Providence area west of Great Slave Lake where some test holes have been drilled and the drilling of others is planned. Some exploratory work is in progress between longitudes 119° and 122° along the Alberta-Northwest Territories boundary and there should be considerable activity in both areas in 1952 as applications have been made for permits to explore several million acres of territory.

The Norman Wells area has been comparatively quiet since World War II and production has been maintained only at a level sufficient to meet the requirements of the various mining operations. Output from wells in the area in 1951 amounted to 215,000 bbl.

Production of uranium ore at the property of the Crown-owned Eldorado Mining and Refining (1944) Limited, at Fort Radium on Echo Bay, which was interrupted by destruction of the mill by fire in November 1951, was resumed in May 1952 with the completion of a new gravity mill and crushing plant. The new leaching unit and related acid plant, which will effect a marked increase in the recovery of uranium, were completed at the same time.

Much of the Northwest Territories still remains unexplored and its outlook as a potential producer of minerals would be difficult to appraise. Most of the mainland portion is underlain by rocks of the Canadian Shield that have proved so highly productive in other parts of Canada. However, except along the western fringes, relatively little geological work has been done in the Shield area. In this connection it should be noted that the Geological Survey of Canada is undertaking a

large project in 1952 that includes the mapping of an approximate 100,000-square-mile-portion of the Shield for about 100 miles from Chesterfield Inlet southwesterly to Selwyn Lake on the southern boundary of Northwest Territories. This is being done to provide a preliminary survey of the mineral potentialities of the area.

Conclusion.—At the time of writing (June 1952), the tempo of mining activity throughout Canada continues to increase and new developments are occurring here and there in the industry—a group of five oil firms has acquired a 50,000-acre Crown permit in the bituminous sands area of northeastern Alberta and is to start a core-drilling campaign shortly; Saskatchewan's third oil-strike in 1952 has been made in the Hoosier area about six miles east of the Alberta border; a staking rush has started in an area 20 miles south of Sudbury; milling of lead-zinc ore is to commence shortly at a property in northern Ontario; and a new gold mine has entered production in western Quebec. Week by week news-making events are occurring and, though the prices of some of the metals have receded from the high levels reached in 1951, there is little indication of a general decline.

Much of the present activity in the industry is the outcome of huge capital outlays in plant, railway, power development and other constructional projects, the Kitimat project and the Quebec-Labrador iron ore development being two outstanding examples. Such expenditures are characteristic of a rapidly growing industry and, though there may be a considerable scaling down from current levels when the present projects are completed, there seems to be every assurance that the flow of funds into mineral development will continue at a high level for some time to come. Quite apart from their beneficial influence on the economy of the country, the accomplishments of the past few years have emphasized the fact that Canada has much greater potentialities as a mineral producer than was ever before realized.

Section 2.—Government Aid to the Mining Industry*

Subsection 1.—Federal Government Aid

The Department of Mines and Technical Surveys.—The Federal Department of Mines and Technical Surveys, which came into being on Jan. 20, 1950, as a result of a departmental reorganization at Ottawa, continues the services, but in larger measure, rendered to the mining industry by the former Department of Mines and Resources. The Department has five branches—Geological Survey of Canada, Mines Branch, Surveys and Mapping Branch, Dominion Observatories, and Geographical Branch.

Geological Survey.—The chief function of the Geological Survey is to map and report on the geology of Canada. It carries out geological studies in the field and office to promote the discovery and development of mineral resources and underground water resources; contributes geological information as an aid in the construction of such public works as dams, bridges, tunnels, foundations, etc.; and makes mineralogical and palæontological studies in the field and office that assist in promoting the study and development of mineral resources; collects minerals and materials for study, exhibition and distribution; and makes geophysical

* Revised under the direction of Marc Boyer, Deputy Minister, in the Editorial and Information Division, Department of Mines and Technical Surveys, Ottawa.

surveys. The types of reports issued by the Geological Survey comprise the following: memoirs with fairly complete descriptive accounts of the geology of particular areas and accompanied, as a rule, by geological maps; bulletins dealing with problems rather than areas; papers issued as soon as possible after the close of the field season, treating separately of each area and summarizing the information acquired; and, the Economic Geology Series reports, dealing in a comprehensive way with mineral deposits of a particular type. Coloured geological maps are issued on various scales from one inch to a few hundred feet to one inch to eight or more miles, the common standard scales being one inch to one mile and one inch to four miles. Preliminary blue-line prints, on which the geology is shown in pattern, are issued shortly after the field season ends of those areas where the search for metals or minerals is active.

Since its establishment in 1842, the Survey has mapped over 30 p.c. of the total area of Canada. In 1952, 78 parties were assigned to field work compared with 88 in 1951. The work undertaken in 1952 included the continued study of metalliferous and potentially metalliferous areas of Canada; the investigation of the Quebec-Labrador iron belt; the geological air reconnaissance of 100,000 sq. miles of territory lying west of Hudson Bay between latitudes 60° and 64°; the mapping of areas favourable to the accumulation of oil and gas in Western Canada and in Ontario; and the examination of occurrences of radioactive minerals, particularly in northern Saskatchewan.

The Regional Geology Division carries out geological surveys of the bedrock formations and associated ores and economic materials of Canada by means of annual programs of systematic investigations and geological mapping, mainly of areas that have been mapped topographically.

The Palæontology Division carries out palæontological and stratigraphical investigations and studies that are of great importance in geological mapping, interpretation of structures, and exploration for natural fuels and minerals.

The Mineralogy Division prepares and distributes mineral and rock collections for use of prospectors and educational institutions, organizes and maintains a systematic collection of minerals for reference and exchange, and identifies mineral specimens sent in by the public.

The Radioactivity Resources Division is concerned with the field and laboratory investigation of Canadian resources of radioactive raw materials, and maintains free testing and advisory services for uranium prospectors. As agent of the Atomic Energy Control Board, the Division receives the results of analyses for uranium and thorium and reports on the development of radioactive mineral deposits, which information is incorporated in a confidential inventory.

The Pleistocene and Engineering Geology Division is engaged in the study of the unconsolidated materials which mantle the bedrock throughout the greater part of Canada. The geological study of these materials is a prerequisite for many types of engineering and agricultural projects.

The Fuels Resources Division is engaged in the technical study and interpretation of rock cuttings from wells drilled for oil and natural gas with the view to directing exploration for these minerals to localities offering the greatest promise of production. The Division also investigates the geology of coal deposits as a basis for estimating Canada's coal reserves, and conducts research into the microscopic character of individual seams, thus providing information of aid in predicting the type of coal which may be expected in advance of actual workings.

Mines Branch.—The Mines Branch is primarily concerned with the technological problems of the mineral industry and maintains well-equipped ore testing, mineral dressing, fuel research, ceramic, radioactivity, industrial minerals and physical metallurgy laboratories to handle these problems.

The Mineral Dressing and Process Metallurgy Division assists new mining ventures by aid in determining the most efficient method of recovering metal contained in ore, assists mine operators in solving problems in milling practice, and develops new procedures to extend the use of mineral resources. Its laboratory facilities are utilized at various times by mining companies for working out some particular process, employing their own staff with the co-operation and guidance of the Division staff.

The Radioactivity Division is concerned with investigations of radioactive ores, in particular with the development and application of methods whereby marketable concentrates may be produced from individual uranium ores. The primary functions of the Division's technical services and laboratory facilities are to help bring new properties into production by determining methods suitable for treatment of particular ores and to encourage the search for uranium deposits. Extensive experimental and development work is conducted on the treatment of ores and products from the properties of the Crown-owned Eldorado Mining and Refining (1944) Limited.

The Industrial Minerals Division is concerned with matters relating to the development and processing of Canada's industrial minerals, including water used for industrial purposes and studies of ores of such alloying metals as cobalt, manganese, molybdenum, tungsten and chromium. To encourage and assist in the development of domestic resources, the Division makes field studies of deposits of industrial minerals, examines industrial processes utilizing them, and carries out research into methods of beneficiating minerals from deposits of marginal and sub-marginal quality to bring them up to the standards demanded by modern industry.

The Fuels Division is engaged in the study of the type, quality and uses of all fuels and of production methods, largely as a means of devising cheaper and more efficient methods of mining, preparation, processing and utilization of coals. Work in the field or in its laboratories includes, for example: the investigation of methods of mining, particularly of rock pressures in relation to the economic mining of coal at depth, and of coal preparation, as, for instance, the cleaning and utilization of the low grade finer sizes of bituminous coal which predominate in Canadian mining operations; the development of a coal-fired gas-turbine; investigations into the making of coke for foundry and other metallurgical uses and into the increased use of Canadian coal in domestic stokers; high-pressure hydrogenation tests on coal for the production of synthetic liquid fuel, and hydrogenation as applied to the refining of oil from bituminous sands of Alberta; and analyses of crude oils and natural-gas products.

There is much inter-relation of federal and provincial activities in regard to fuels. A current illustration of this is the establishment of a joint federal and Nova Scotia office and laboratory at Sydney, N.S., to investigate the nature and extent of the coal seams in Cape Breton; another concerns the pilot-plant project, recently terminated, for separating bitumen from Alberta bituminous sands by a method devised in the Mines Branch.

The Physical Metallurgy Division aids in the growth of the metal industries through the development of new alloys, new manufacturing techniques, and new applications; in the improvement of present practices in metal fabrication industries; and in the more effective use of metallic products by the consumer. Close co-operation is maintained with the National Research Council, particularly in the metallurgical work associated with the development of the atomic energy project at Chalk River, Ont.

The Mineral Resources Division—through the wealth of data amassed over many years on mineral properties and operating mines, mineral exploration and development, processing and production, new research development, uses and marketing of minerals and their products, world sources of minerals and new discoveries, and on mining laws and taxation—provides a general mineral information service that is freely used by government departments, mining and allied industries, and others interested in mining or its significance in the Canadian economy. A mineral resources index inventory has been established of all known occurrences and mines, both active and potential, special attention being given to occurrences of those minerals in which Canada is deficient.

The Division makes specific economic studies of various phases of the mining industry. It gives technical advice as required for the administration of the Emergency Gold Mining Assistance Act and prepares reports, on request, to aid the administration also of such matters as: tax exemptions on new mining properties; tax deductions as an encouragement to prospecting for base metals, other minerals and petroleum; and tax allowances for the drilling of deep-test wells for oil in unproven fields.

Surveys and Mapping Branch.—The Surveys and Mapping Branch provides the base maps required for use in the development of Canada's natural resources, produces and distributes all Canadian aids to navigation, is responsible for all legal surveys of federal lands, and provides a national system of levelling and precision surveys for use as geodetic control by federal, provincial and private agencies.

New developments in mapping equipment and new techniques in mapping practice make it possible to increase the output of maps and charts, and to cover areas, such as northern Yukon Territory where lack of transport facilities and shortness of field season previously had made the cost of mapping prohibitive.

The Geodetic Survey provides the original surveys which form the framework or basic control for mapping throughout Canada and for engineering and surveying projects related to natural resources development. The control is provided by establishing survey stations at fairly regular intervals across Canada. These stations are marked by permanent monuments whose latitudes, longitudes and elevations above mean sea level are determined with a high degree of accuracy.

The determination of geographical position by astronomical observations for mapping purposes in northern areas is being superseded by Shoran trilateration in which the recently developed adaptation of radar is meeting with success. During the 1951 and 1952 field seasons geodetic control was thus extended to the Far North many years in advance of the time that would have been required by conventional methods.

The Topographical Survey provides base topographical maps that show all significant natural and artificial features fundamental to the study and economic development of mineral and other natural resources. The Topographical Mapping

Section is responsible for field surveys; and the Air Survey Section plots and produces maps from aerial photographs, with control provided by field surveys. The Map Editing Section and Compilation Section are responsible, respectively, for map editing and finishing, and mathematical computations. The National Air Photographic Library is responsible for indexing, preserving and distributing prints for all air photography done by or for the Federal Government, and the Survey administers and provides funds for the Canadian Board on Geographic Names.

In 1952, 57 parties including 14 Army Survey Establishment parties were placed in the field to carry out original ground surveys for control of mapping from aerial photographs over widely distributed areas. The field program included the projected helicopter operations in Newfoundland, to complete the topographic mapping of that Province and in northwest Yukon Territory. With the development of technique, instruments and mechanical aids to plotting maps from air photographs, topographical mapping practice has so changed that it is now held to be essential to have photographs of any area to be mapped. These are provided by the Royal Canadian Air Force and by commercial companies.

The Legal Surveys Division makes and records legal surveys of lands belonging to Her Majesty in the right of Canada or of which the Government of Canada has power to dispose, that are situated in the Yukon and Northwest Territories and the National Parks, and that are Indian lands or reserves; prepares and maintains aeronautical charts and flight manuals; prepares electoral maps; plots planimetric base maps from tri-camera aerial photographs; records and indexes survey returns and plans; and distributes plans, maps and aeronautical charts.

The Canadian Hydrographic Service is primarily responsible for the charting of the coastal and inland navigable waters of Canada, the analyses of tides and tidal current phenomena, and the investigation of water-surface elevations of the St. Lawrence-Great Lakes waterway. The resultant data are published in the form of official navigation charts, volumes of Sailing Directions, Tide Tables, and Water Level Bulletins.

Dominion Observatories.—The two main units of the Dominion Observatories are the Dominion Observatory at Ottawa, Ont., and the Dominion Astrophysical Observatory at Victoria, B.C. Permanent magnetic observatories are maintained at Agincourt, Ont., Meanook, Alta., and at Resolute Bay and Baker Lake, N.W.T. Seismic stations for recording earthquakes are operated at Ottawa and Victoria; at Seven Falls and Shawinigan Falls, Que.; Halifax, N.S.; Saskatoon, Sask.; and at Resolute Bay, N.W.T.

The Dominion Observatory at Ottawa is responsible for the time service of Canada, which involves nightly astronomical observations of accurate star positions and radio-broadcast services for distributing accurate time to all parts of Canada. Other astronomical activities centred at Ottawa include upper atmospheric studies by means of meteor observations, studies of the sun and its effect on earthly conditions, and mathematical studies of the atmospheres of the sun and stars. The geophysical work, also administered from Ottawa, includes the magnetic survey of Canada, with emphasis on aids to air and sea navigation, as well as field and observatory work of interest to the geophysical prospector. The methods of seismology are employed not only to study interesting and economically important aspects of the earth's crust in Canada, but also as part of world-wide investigations of the earth's interior. Gravity observations are carried on throughout Canada with a generally similar purpose, special attention being paid to methods of locating economic minerals.

The Dominion Astrophysical Observatory at Victoria is devoted to fundamental research into the physical characteristics of the sun, stars, planets and the material of interstellar space. The 73-inch reflecting telescope is one of the largest in the world and through its use many important contributions have been made to astronomical knowledge.

The Geographical Branch.—The primary function of the Geographical Branch is to organize and make available all the geographical data on Canada and on foreign countries that might be of use in promoting the economic, commercial and social welfare of Canada. Work undertaken by the Branch is of two kinds—the compilation of geographical material of national significance, and geographical surveys in the field. An important project currently in hand is the compilation of an Atlas of Canada.

The Dominion Coal Board.—The Dominion Coal Board was created in October 1947 (11 Geo. VI, c. 57), the functions and duties of which are clearly defined in the Act. The Board is charged with the responsibility of implementing the recommendations of the Royal Commission on Coal and the Act specifically states that it may undertake researches and investigations with respect to:—

- (1) the systems and methods of mining coal;
- (2) the problems and techniques of marketing and distributing coal;
- (3) the physical and chemical characteristics of coal produced in Canada with a view to developing new uses therefor;
- (4) the position of coal in relation to other forms of fuel or energy available for use in Canada;
- (5) the cost of production and distribution of coal and the accounting methods adopted or used by persons dealing in coal;
- (6) the co-ordination of the activities of Government Departments relating to coal;
- (7) such other matters as the Minister may request or as the Board may deem necessary for carrying out any of the provisions or purposes of this Act.

Transportation assistance to extend the markets for Canadian coal was made available to the amount of \$3,018,189 in the year ended Mar. 31, 1951, and 2,699,615 tons of coal were moved under this subvention during the year. Expenditures under the Coke Bounty Act providing a subsidy on Canadian coal used in the manufacture of coke for metallurgical purposes amounted to \$424,725. The amount of coal bonused was 858,031 tons.

The Board continued its studies on problems relating to coal research and of other organizations engaged in the production and distribution of solid fuels.

Subsection 2.—Provincial Government Aid*

Nova Scotia.—Under the provisions of the Mines Act (14 Geo. VI, S.N.S., c. 3), the Government of Nova Scotia may assist a mining company or operator in the sinking of shafts, slopes, deeps and winzes and the driving of adits, tunnels, crosscuts, raises and levels. This assistance may take the form of work performed under contract, the payment of bills for materials and labour, or the guarantee of bank loans. Any such work must be approved by the Department of Mines. The Government is also authorized to assist the mining industry to procure power on the most economical basis, and may guarantee the Nova Scotia Power Commission against any loss incurred on account of capital investments made for that purpose

* Information supplied by the Departments of Mines or Mines Branches of the various provinces.

or revenue. Mining machinery and equipment that may be used in searching for and testing and mining of minerals is available through the Government. Such equipment is under the direct supervision of the Chief Mining Engineer.

The Government of Nova Scotia is also empowered to make any regulations considered necessary for increasing the output of coal. Such regulations cover the appropriation, on payment, of unworked coal lands, operation of coal mines, loans or guarantees for loans. Close co-operation is maintained with the Federal Government in carrying out federal regulations made to secure increased production and economical distribution of coal from the mines of the Province.

New Brunswick.—The Mines Branch of the New Brunswick Department of Lands and Mines examines mineral and rock specimens for prospectors and makes preliminary examinations of mineral prospects where requested. Four diamond drills, which may be used for mineral exploration work on an "at-cost" basis, are made available by the Government.

Quebec.—The Mining Act (R.S.Q., 1941, c. 196) authorizes the Quebec Department of Mines to build, maintain and improve roads needed for mining development. Such work is done by contract, under the supervision of departmental engineers. The Act gives the Department considerable latitude in this respect. In certain cases, major roads have been built to new mining districts and completely paid for; on the other hand, if a particular property requires a branch road from an established highway, the owner may be required to contribute a portion of the cost. To prevent the development of uncontrolled settlements in the vicinity of operating mines, the Department regulates the use of land and permits the establishment of well-organized communities. The municipal organization of such communities is jointly administered by the Department of Mines and the Department of Municipal Affairs.

The Department maintains well-equipped laboratories for the benefit of prospectors, geologists, engineers and mine operators. The facilities include equipment for mineralogy, petrography, ore-dressing, and analysis by wet or dry assays, spectrography or X-ray. Quantitative and mineralogical determinations are made free, but quantitative analyses are made for a fee according to a tariff schedule. The Mining Act provides coupons to be used by prospectors in paying for such analyses.

At Val d'Or in western Quebec, the Department maintains a sampling and treatment plant where tests may be made on bulk samples and where precious metals may be recovered for prospectors at cost price. The treatment plant, which is fully equipped to carry out a wide variety of pilot-scale ore-dressing tests, is at the disposal of mine owners wishing to establish mill-flow sheets. At Thetford Mines, in the heart of the asbestos district, the Department maintains a laboratory where classification of the asbestos is made according to standard designations or grades. The Province has authorized the establishment of research laboratories to assist mining and metallurgical enterprises in the processes and techniques of extracting, transforming and utilizing ores.

The Department undertakes geological mapping and inspection. The work is divided between two branches, one responsible for reconnaissance aerial mapping, the other doing detailed mapping in mining districts and inspection of individual deposits or properties. Field parties are headed by geologists or mining engineers.

The published reports on these investigations are distributed free upon request. During the field season, about 30 parties are maintained in different sections of the Province.

In mining districts, offices, in charge of resident geologists, are maintained to collect, preserve and compile geological information disclosed by mining explorations. The individual sheets of the compiled geology are made available to the public.

The Department employs inspectors whose duties are almost exclusively concerned with the safety of workmen in operating mines. Two Mobile Mine Rescue Stations are also operated and a mine rescue training program conducted.

In the field of education for prospectors, five-week courses at university level are organized each year at Laval and Montreal Universities. University scholarships are granted each year to deserving undergraduates and post-graduates in mining, geology and metallurgy, thus contributing to the training of qualified engineers for the benefit of the mining industry. Lectures are given to prospectors at different localities throughout the Province.

Ontario.—The Ontario Department of Mines renders a multiplicity of services of direct assistance to the mining industry within the Province as briefly enumerated below.

Mining Lands Branch.—This Branch handles all matters dealing with the recording of mining claims, assessment work, etc., and the final issuance of title to mining lands. As a service to the mining public, individual township maps are prepared and kept up to date showing lands open for staking and recorded and patented claims therein. As new surveys are made or later data becomes available, maps are revised in line with such information. District Mining Recorders maintain offices at strategic locations throughout the Province.

Geological Branch.—A continuing program of geological mapping and investigation is carried out by the geological staff of the Department. Detailed reports and geological maps of the areas studied are made available to the public. In many of the active areas of the Province, resident geologists are engaged to gather and make available to the public, information concerning geological conditions, exploration and development within their respective districts. One geologist specializing in industrial minerals is maintained on the staff to examine deposits of this order, investigate methods of treatment and recovery of such minerals, and to compile data on the uses, specifications and markets for such products. Collection and dissemination of information on ground water resources is also a function of a section of the Geological Branch. During the winter months courses of instruction for prospectors are held in various centres throughout the Province.

Laboratories Branch.—The Provincial Assay Office, located in the East Block of the Parliament Buildings, Toronto, carries out wet analyses and assays of metal and rock constituents on a custom fee basis and also renders the same service free of charge to holders of valid assay coupons issued for the performance of assessment work on mining claims. The Temiskaming Testing Laboratories situated at Cobalt, in addition to performing fire assays and chemical analyses, conducts a bulk sampling plant mainly to assist the producers of the area in the marketing of the cobalt-silver ores. A Cable Testing Laboratory, wherein all hoisting ropes in use at the mines are periodically tested, is operated under the supervision of the Inspection Branch.

Inspection Branch.—The main function of this Branch is the regular examination of all operating mines, quarries, sand and gravel pits and certain metallurgical works with a view to ensuring proper conditions of health and safety to the men employed. District offices to serve the local areas are maintained in the major mining centres of the Province. Mine rescue stations in the principal mining sections are operated under the supervision of the Inspection Branch.

Exhibitions.—The Department each year presents displays pertaining to mining within the Province at such exhibitions as the Central Canada at Ottawa, the Canadian National at Toronto, and the Northern Ontario at Schumacher.

Publications Branch.—All maps and reports of the Department are distributed through the agency of the Publications Branch located at the main office of the Department.

Library.—A mining library for departmental reference only is maintained within the Department. This library is comprised mainly of publications and maps of the Federal and Provincial Governments of Canada as well as numerous periodicals and bulletins from the United States.

Mining Roads.—The most recent service of the Department is the provision of mining roads. In general, two classes of road-building are envisioned under this program. The first class of road contemplated is a mining access road, financed solely by the Department, for the purpose of opening up favourable areas for exploration, whereas the second class of road, undertaken jointly by the Department and local mining operators, is intended to assist in the provision of required service roads to such operators.

Manitoba.—Since the transfer, in 1930, of the natural resources of Manitoba from the Government of Canada to the Province, the Mines Branch of the Manitoba Department of Mines and Natural Resources has offered four main services of assistance to the mining industry: (1) maintenance, by the Mining Recorders' offices at Winnipeg and The Pas, of all records essential to the granting and retention of titles to every mineral location in Manitoba; (2) compilation, by the geological staff of the Branch, of information pertinent to mineral occurrences of interest both in the past and the present and expansion of this information by a continuing program of geological mapping; (3) enforcement of mine safety regulations and, by collaboration with industry, initiation of new practices, such as those concerned with mine ventilation and the training of mine rescue crews, which contribute to the health and welfare of mine workers; and (4) maintenance of a chemical and assay laboratory to assist the prospector and professional man alike in the classification of rocks and minerals and the evaluation of mineral occurrences.

Saskatchewan.—The assistance given to the mining industry by the Saskatchewan Provincial Government consists of the following: (1) the maintenance of a Geological Department under a Chief Geologist; (2) resident geologists stationed in or near the principal mining areas; (3) geological survey parties and reports; (4) prospecting concessions; (5) Prospectors' Assistance Plan; and (6) Native Trainees Plan.

The Chief Geologist and a staff are available at all times to give information or any other possible help to interested parties. The Geological Department has headquarters at Regina, with a branch at Saskatoon where a Petroleum Examination Laboratory is located.

Resident geologists are stationed at Goldfields and Prince Albert for the same purpose as that of the main Geological Department and also to give any assistance they can to prospectors in those areas.

During the summer months geological survey parties study and map attractive areas and prepare reports which are made available to interested persons.

Prospecting concessions are granted to companies and individuals of integrity in areas remote from present mining districts. The purpose of this is to encourage the prospecting of such remote areas. It is to be noted that a concession is for prospecting only and any title to mineral rights is secured by the ordinary method of staking claims.

The Prospectors' Assistance Plan is intended to encourage prospecting, and assists bona fide prospectors by way of equipment, food, transportation and technical advice to prospect favourable areas, geologically speaking.

The Native Trainees Plan has a twofold purpose: (1) to train the Indians in the northern part of the Province to recognize the common minerals so that, as they go about their usual work, they will be aware of anything of value they might observe; (2) to train them to a point where they may be used as prospectors for the exploration companies and, in so doing, extend their means of livelihood beyond that of hunting and trapping.

Alberta.—Alberta Government assistance to the mining industry is diversified in character. The Mines Division of the Department of Mines and Minerals regulates coal mines and quarries and maintains standards of safety by inspection and certification of workers. The Workmen's Compensation Board also maintains safety standards and trains mine-rescue crews. The oil and gas industries are served in a similar way by the Petroleum and Natural Gas Conservation Board. Its regulatory measures, however, are also concerned with the prevention of waste of oil and gas resources and with giving each owner of oil and gas rights the opportunity of obtaining a fair share of production. This Board also compiles periodic reports and annual records which are of invaluable assistance in oil development in Alberta. The mining industry is also served by the Research Council of Alberta which has made geological surveys of most of the Province and has carried forward projects concerned with the uses and development of minerals. The Council has studied the occurrence, uses and analysis of Alberta coals, and of their particular chemical and physical properties, the use of coals in generation of power, the upgrading and cleaning of coal and has studied briquetting, blending, abrasion loss, shatter and crushing strength, asphalt binders and dust-proofing of coal. The Council's work with bituminous sands has helped with the development of the hot-water separation process and the operation of pilot plants. Studies have been made of glass sands, salt, fertilizers, cement manufacture and brick and tile manufacture.

The Province from time to time has had commissions examine various aspects of the mining industry when it was considered that their findings would be of assistance in developing such industries. In a recent move, the Province, together with the Canadian Association of Oil Well Drilling Contractors and the Western Canada Petroleum Association, has maintained a detailed supervisory and safety training program concerned with the drilling of oil and gas wells.

Of assistance also to mining companies and oil companies are the special deductions provided for in the Alberta Corporation Income Tax Act. These follow the parallel provisions in the Federal Income Tax Act.

British Columbia.—The Department of Mines of British Columbia provides the following services: (1) detailed geological mapping as a supplement to the work of the Geological Survey of Canada; (2) free assaying and analytical work for bona fide prospectors registered with the Department; (3) assistance in the field to the prospector by departmental engineers and geologists; (4) grubstakes, limited to \$500, for prospectors; (5) assistance in the construction of mining roads and trails; and (6) inspection of mines to ensure safe operating conditions.

Section 3.—Mining Legislation

Federal Mining Laws and Regulations.*—The Federal Government administers the mineral lands of the Yukon and Northwest Territories as well as those within Indian Reserves and in National Parks.

Mining laws and regulations covering the Yukon and Northwest Territories are administered by the Northern Administration and Lands Branch, Department of Resources and Development. Titles issued for federal lands, the property of the Federal Government, in these regions reserve to the Crown the mines and minerals that may be found on or under such lands, together with the right of operation.

Mining rights on vacant and certain other federal lands may be acquired by lease for a period usually of 21 years, renewable for further periods of like duration, on the terms and conditions specified in the various Acts and regulations relating to federal lands.

The disposal of minerals in Indian Reserves is, with the exception of gold and silver, subject to the consent of the Indians owning the Reserve.

The Acts and regulations governing mining and quarrying on federal lands are summarized in Report No. 828 issued by the Mines Branch, Department of Mines and Technical Surveys, Ottawa, and entitled *Mining Laws of Canada*. This publication also lists all the laws and regulations pertaining to mining on federal lands, and copies of these individual laws and regulations may be obtained by applying to the Northern Administration and Lands Branch, mentioned above. Another publication of interest in connection with mining regulations and available from the same source is entitled *Summary Review of Dominion Tax and Other Legislation Affecting Mining Enterprises in Canada*.

Provincial Mining Laws and Regulations.†—All mineral lands lying within the boundaries of the several provinces (with the exception of those within Indian Reserves and National Parks which are under the jurisdiction of the Federal Government) are administered by the respective provincial governments.

The granting of land in any province, except Ontario, no longer carries with it mining rights upon or under such land. In Ontario, mineral rights are expressly reserved if they are not to be included. Some early grants in British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick and Quebec also included certain mineral rights. Otherwise, mining rights must be separately obtained by lease or grant from the provincial authority administering the mining laws and regulations. Mining activities may be classified as placer, general minerals (or

* Revised under the direction of Marc Boyer, Deputy Minister, in the Editorial and Information Division, Department of Mines and Technical Surveys, Ottawa.

† Compiled from material supplied by the Provincial Governments.

veined minerals and bedded minerals), fuels (coal, petroleum, gas) and quarrying. Under these divisions of the provincial mining industry, regulations may be summarized as follows:—

Placer.—In those provinces in which placer deposits occur there are regulations defining the size of placer holdings, the terms under which they may be acquired and held, and the royalties to be paid.

General Minerals.—These minerals are sometimes described as quartz, lode, or minerals in place. With the exception of British Columbia, the most elaborate laws and regulations apply in this division. In all provinces, except Alberta, a prospector's or miner's licence, valid for one year, must be obtained to search for mineral deposits, the licence being general in some cases but limited in others. A claim of promising ground of a specified size may then be staked. This claim must be recorded within a time limit, with the payment of recording fees, except in Quebec where no fees are required. Work to a specified value per annum must be performed upon the claim for a period of up to ten years. There is no time limit in British Columbia but \$500 assessment work, of which a survey may represent one-fifth, must be performed and recorded before a Crown grant may be obtained. In Quebec work must be performed to a specified number of man-days with no time limit, when a grant or lease of the mining rights may be obtained, subject to agreement to develop as well as the payment of fees or an annual rental. The taxation applied most frequently is a percentage of net profits of producing mines or royalties. In the case of Newfoundland, the provincial mining tax has been modified since Confederation on Mar. 31, 1949, to conform with the provincial obligations under the Federal-Provincial Tax Agreement and no other form of taxation or royalties exists.

Fuels.—In provinces where coal¹ occurs, the size of holdings is laid down together with the conditions of work and rental under which they may be held. In Quebec ordinary mining claims give rights to all mineral substances and to their development, but stakings for combustible natural gas, salt, coal, mineral oil or naphtha, or iron sands may cover 1,280 acres per claim. In some cases royalties are provided for. Acts or regulations govern methods of production. In the cases of petroleum and natural gas, an exploration permit or reservation is usually required. However, in Alberta no such permit or reservation is necessary and the applicant usually takes out a lease, whether or not any discovery is made, because exploration costs are applicable in part on his first year's rental. In other provinces, except Manitoba, the discovery of oil or gas is usually prerequisite to obtaining a lease or grant of a limited area subject to carrying out drilling obligations and paying a rental, fees or a royalty on production.

Quarrying.—Regulations under this heading define the size of holdings and the terms of lease or grant. On Quebec private lands, the quarry belongs to the owner; on Crown lands, mineral rights belong to the Crown and may be obtained in accordance with the provisions of the law, although the rights to exploit peat or marl must be obtained by special licence. In British Columbia quarry rights are not reserved in Crown grants.

Copies of mining legislation including regulations and other details may be obtained from the provincial authorities.

Section 4.—Statistics of Mineral Production

The importance of mineral production, as compared with other primary industries in Canada, is indicated in Chapter IX, while its part in the foreign trade of Canada is dealt with in Chapter XXI, Part II, Section 4.

Subsection 1.—Value and Volume of Mineral Production

Historical Statistics.—Definite records of the annual value of mineral production go back to 1886 only, although actual production began with the earliest settlements. The figures given in Table 1 are not strictly comparable throughout the whole period, minor changes having been adopted in methods of computing both the metallic content of ores sold and the valuations of the products. Earlier methods resulted in a somewhat higher value than those now in use would have shown. However, the changes do not interfere with the general usefulness of the figures in showing the broad trends in the mineral industry.

1.—Value of Mineral Production, 1886-1951

Year	Total Value	Value per Capita	Year	Total Value	Value per Capita	Year	Total Value	Value per Capita
	\$	\$		\$	\$		\$	\$
1886.....	10,221,255	2-23	1931 ¹	230,434,726	22-21	1942.....	566,768,672	48-63
1890.....	16,763,353	3-51	1932.....	191,228,225	18-19	1943.....	530,053,966	44-94
1895.....	20,505,917	4-08	1933.....	221,495,253	20-83	1944.....	485,819,114	40-67
1900.....	64,420,877	12-15	1934.....	278,161,590	25-90	1945.....	498,755,181	41-32
1905.....	69,078,999	11-51	1935.....	312,344,457	28-80	1946.....	502,816,251	40-91
1910.....	106,823,623	15-29	1936.....	361,919,372	33-05	1947.....	644,869,975	51-38
1915.....	137,109,171	17-18	1937.....	457,359,092	41-41	1948.....	820,248,865	63-97
1920.....	227,859,665	26-63	1938.....	441,823,237	39-62	1949 ²	901,110,026	67-01
1925.....	226,583,333	24-38	1939.....	474,602,059	42-12	1950.....	1,045,450,073	76-24
1929.....	310,850,246	31-73	1940.....	529,825,035	46-55	1951 ²	1,228,005,479	87-66
1930.....	279,873,578	27-42	1941.....	560,241,290	48-69			

¹ Beginning with 1931, exchange equalization on gold production is included.
of Newfoundland production from 1949.

² Includes value

Current Production.—Canada's mineral production in 1951 reached a record value of \$1,228,000,000. This was 17 p.c. above the total for 1950, twice the value reported for 1947 and four times that for 1935. Higher prices accounted for a large share of this increase in values but the physical quantity of mineral production seems to have been about 11 p.c. greater than in 1950, nearly 45 p.c. greater than in 1947 and about double that of 1935. Most of the gain in physical volume in the post-war years was in non-metallic minerals, including fuels and structural materials. For metal production, the index for 1951 was about 2 p.c. over 1950 but it was 15 p.c. below that for 1941, the year of maximum output.

The value of metals in 1951 was estimated at \$733,000,000, or 18.7 p.c. more than in 1950. Copper was up 2.4 p.c. in quantity and 21 p.c. in value; tonnage of nickel was higher by 11 p.c. and the value advanced 34 p.c.; and zinc rose 6.6 p.c. in quantity and 36 p.c. in value. The tonnage of lead was lower by 8 p.c., but the value was higher by 17 p.c. The tonnage of iron ore was 31 p.c. greater than in 1950.

Gold was again the leading mineral in terms of output value in 1951. The price of gold in Canadian dollars ranged from \$37.50 to \$35.80 per oz t., the nominal average being \$36.82 per oz t. compared with \$38.05 in 1950. The lower price, combined with lower volume, resulted in a drop of nearly \$10,000,000 in the total value of the 1951 output.

The gain of 18 p.c. in the value of mineral fuels to \$238,000,000 was due almost entirely to the tremendous increase in production of crude petroleum in Alberta. The output of crude oil totalled 48,000,000 bbl. compared with 29,000,000 bbl. for 1950, and the value was up 43 p.c. to \$121,000,000. Coal production was slightly lower than in 1950.

Structural materials were in greater demand throughout 1951. Output of cement totalled 16,900,000 bbl. valued at \$40,200,000, a new record in tonnage and value. Lime production was up 16 p.c. in value to \$14,200,000 from 1950; clay products, which include brick, tile, sewer pipe, etc., were valued at \$23,600,000, a gain of 8 p.c. over 1950. Stone for buildings, monuments, railway ballast, etc., was valued at \$24,600,000 in 1951 and sand and gravel, mainly for highway construction, totalled \$43,000,000.

In the non-metallic mineral group in 1951, the output of asbestos, the principal item, was up 10 p.c. in tonnage and 20 p.c. in value to 967,000 tons at \$78,800,000. Production of salt increased 12 p.c. to 962,000 tons, a large part being for use in making chemicals. Sulphur in the form of pyrites and sulphuric acid totalled 368,000 tons, a gain of 22 p.c. over 1950; no elemental sulphur was made in 1951. Fluorspar, mostly from Newfoundland, totalled 87,000 tons, a gain of 35 p.c. Gypsum production was about the same as in 1950.

Capital expenditures in the mining industries increased to \$228,000,000 in 1951 from \$182,000,000 in 1950.

During the past few years, the direction of Canadian exports of the principal base metals has been drastically altered. In 1939 the United States took only 3 p.c. of the aluminum production but took 48 p.c. in 1950; the corresponding rise for copper was from 1 p.c. to 38 p.c., for lead from zero to 91 p.c., and for zinc from 4 p.c. to 74 p.c. In 1951 there was a partial swing back again, but the over-all change is still quite a radical one. The fact appears to be that the United States has become for the first time a substantial importer of these metals to meet a steeply rising consumption as well as for strategic stockpiling.

2.—Quantities and Values of Minerals Produced, 1946, 1949 and 1950

Mineral	1946		1949 ¹		1950 ¹	
	Quantity	Value	Quantity	Value	Quantity	Value
Metallies		\$		\$		\$
Antimony..... lb.	642,145	96,322	158,288	61,020	643,540	215,586
Arsenic (As ₂ O ₃).....	745,885	38,264	—	—	—	—
Beryllium ore..... ton	—	—	—	—	29	7,882
Bismuth..... lb.	240,504	336,706	102,913	210,972	191,621	431,147
Cadmium..... "	802,648	979,230	846,541	1,735,409	848,406	1,968,302
Calcium..... "	53,518	68,720	520,609	1,041,218	2	2
Chromite..... ton	3,110	61,123	361	7,148	—	—
Cobalt..... lb.	73,900	70,215	619,065	952,469	583,806	964,003
Copper..... "	367,936,875	46,632,093	526,913,632	104,719,151	528,418,296	123,211,407
Gold..... oz t.	2,832,554	104,096,359	4,123,518	148,446,648	4,441,227	168,988,687
Indium..... "	—	—	689	1,550	4,952	12,083
Iron ore..... ton	1,549,523	6,822,947	3,675,096	21,203,907	3,605,261	23,413,547
Iron ingots..... "	—	—	—	—	1,697	138,284

For footnotes, see end of table.

2.—Quantities and Values of Minerals Produced, 1946, 1949 and 1950—concluded

Mineral	1946		1949 ¹		1950 ¹	
	Quantity	Value	Quantity	Value	Quantity	Value
Metallics—concluded		\$		\$		\$
Lead..... lb.	353,973,776	23,893,230	319,549,865	50,488,879	331,394,128	47,886,452
Magnesium..... "	320,677	75,538	3	—	—	1,545,011 ⁴
Molybdenite..... "	676,844	295,640	—	—	103,550	60,059
Nickel..... "	192,124,537	45,385,155	257,379,216	99,173,289	247,317,867	112,104,685
Palladium, rhodium, iridium, etc..... oz t.	117,566	5,162,801	182,233	8,289,915	148,741	7,578,144
Platinum..... "	121,771	7,672,791	153,784	11,603,002	124,571	10,255,929
Pitchblende products..... "	—	—	—	—	—	—
Selenium..... lb.	521,867	949,798	318,225	652,361	261,973	633,975
Silver..... oz t.	12,544,100	10,493,139	17,641,493	13,098,808	23,221,431	18,767,561
Tellurium..... lb.	15,848	24,405	11,692	21,046	10,075	19,143
Tin..... "	874,186	507,028	619,117	633,047	796,403	828,259
Titanium ore..... ton	1,406	7,735	540	2,892	1,253	7,706
Tungsten concentrates..... lb.	—	—	252,380	252,380	284,078	160,343
Zinc..... "	470,620,360	36,765,450	576,524,097	76,372,147	626,454,598	98,040,145
Totals, Metallics.....	...	290,424,689	...	538,967,258	...	617,238,340
Non-Metallics (Excluding Fuels)						
Arsenious oxide..... lb.	—	—	526,645	26,332	794,091	52,029
Asbestos..... ton	558,181	25,240,562	574,906	39,746,072	875,344	65,854,568
Barite..... "	120,419	1,006,473	47,138	557,662	77,177	750,378
Corundum..... "	742	102,340	—	—	—	—
Diatomite..... "	90	2,532	60	1,703	49	1,665
Feldspar..... "	35,243	384,677	36,948	428,502	35,548	428,401
Fluorspar..... "	8,042	237,491	64,477	1,592,908	64,213	1,553,004
Garnets rock..... "	2	1,200	—	—	3	240
Graphite..... "	1,975	180,405	2,147	212,496	3,586	390,815
Grindstone..... "	295	17,450	195	12,450	100	10,000
Gypsum..... "	1,810,937	3,671,503	3,014,249	5,423,690	3,666,336	6,707,506
Iron oxide..... "	12,695	152,268	13,625	207,887	13,696	262,632
Magnesian dolomite, brucite..... "	—	1,225,593	—	1,536,200	—	1,717,879
Mica..... lb.	8,720,669	199,039	3,490,556	108,458	3,879,209	252,611
Mineral water..... imp. gal.	217,842	122,404	306,691	146,240	318,829	158,897
Nepheline syenite..... ton	61,261	229,198	78,783	623,002	65,638	842,886
Peat moss..... "	96,839	2,395,649	80,249	2,376,849	75,195	2,256,870
Phosphate rock..... "	87	869	20	291	129	1,069
Quartz..... "	1,413,378	1,554,798	1,722,476	1,588,531	1,730,695	1,740,268
Salt..... "	537,985	3,626,165	749,015	5,566,725	858,896	7,011,306
Silica brick..... M	2,902	197,804	3,663	453,797	3,126	408,813
Soapstone and talc..... ton	29,353	303,684	26,922	320,793	32,604	364,635
Sodium carbonate..... "	—	—	47	513	—	—
Sodium sulphate..... "	105,919	1,117,683	120,259	1,614,731	130,730	1,615,867
Sulphur ⁵ "	234,771	1,784,666	261,871	2,039,384	301,172	2,189,660
Titanium dioxide..... "	—	—	—	—	1,596	149,655
Totals, Non-Metallics.....	...	43,754,453	...	64,585,216	...	94,721,564
Fuels						
Coal..... ton	17,806,450	75,361,481	19,120,046	110,915,121	19,139,112	110,140,399
Natural gas..... M cu. ft.	47,900,484	12,165,050	60,457,177	11,620,302	67,822,230	6,433,041
Peat..... ton	145	1,305	56	560	58	580
Petroleum, crude..... bbl.	7,585,555	14,989,052	21,305,348	61,118,490	29,043,788	84,619,937
Totals, Fuels.....	...	102,516,888	...	183,654,473	...	201,193,957
Structural Materials						
Clay products, brick, tile, etc..... "	—	12,207,367	—	17,981,709	—	21,790,888
Cement..... bbl.	11,560,483	20,122,503	15,916,564	32,901,936	16,741,826	35,894,124
Lime..... ton	840,799	7,074,940	1,018,823	11,309,820	1,124,188	12,281,084
Sand and gravel..... "	39,949,994	15,529,700	63,356,308	31,181,541	73,095,163	36,434,759
Stone..... "	8,056,260	11,185,711	13,928,039	20,528,073	18,087,064	25,895,357
Totals, Structural Materials.....	...	66,120,221	...	113,903,079	...	132,296,212
Grand Totals.....	...	502,816,251	...	901,110,226	...	1,045,450,073

¹ Includes Newfoundland.² Included with magnesium.³ Not released for publication.⁴ Includes calcium.⁵ Sulphur content of pyrites shipped and estimated sulphur contained in the sulphuric acid made from smelter gases.

Analysis of Current Value and Volume.—In order to interpret more clearly and simply the trends in mineral production in Canada over the past ten years, Table 3 gives the percentage of the total value contributed by each principal mineral in each year. Values upon which percentages in this table are based are the annual values of mineral production, expressed in Canadian currency, as shown in Tables 1 and 2.

3.—Percentages of the Total Value Contributed by Principal Minerals, 1941-50

Mineral	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
METALLICS										
Copper.....	11.5	10.7	12.7	13.4	11.9	9.3	14.2	13.1	11.6	11.8
Gold.....	36.7	32.9	26.5	23.2	20.8	20.7	16.7	15.1	16.5	16.2
Lead.....	2.8	3.0	3.1	2.8	3.5	4.8	6.9	7.3	5.6	4.6
Nickel.....	12.3	12.4	13.5	14.2	12.4	9.0	11.0	10.6	11.0	10.7
Pitchblende products.....	0.2	1	1	1	1	1	1	1	1	1
Platinum metals.....	1.5	3.4	2.6	1.7	5.4	2.6	1.5	2.0	2.2	1.7
Silver.....	1.5	1.5	1.5	1.2	1.2	2.1	1.4	1.5	1.5	1.8
Zinc.....	3.1	3.5	4.6	4.9	6.7	7.3	7.2	8.0	8.5	9.4
TOTALS, METALLICS²	70.6	69.2	67.3	63.5	63.6	57.8	61.3	59.6	59.8	59.0
FUELS										
Coal.....	10.4	11.1	11.9	14.5	13.5	15.0	12.0	13.0	12.3	10.5
Natural gas.....	2.2	2.4	2.5	2.3	2.5	2.4	2.1	1.9	1.3	0.6
Petroleum.....	2.6	2.8	3.1	3.2	2.7	3.0	3.0	4.6	6.8	8.1
TOTALS, FUELS	15.2	16.3	17.5	20.0	18.7	20.4	17.1	19.5	20.4	19.3
Non-METALLICS (EXCLUDING FUELS)										
Asbestos.....	3.8	4.0	4.4	4.2	4.6	5.0	5.1	5.1	4.4	6.3
Gypsum.....	0.4	0.2	0.3	0.3	0.4	0.7	0.7	0.7	0.6	0.6
Quartz.....	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
Salt.....	0.6	0.7	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.7
Sulphur.....	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.2
TOTALS, Non-METALLICS²	6.1	6.5	7.3	7.7	8.0	8.7	8.5	8.2	7.1	9.0
STRUCTURAL MATERIALS										
Clay products.....	1.4	1.2	1.2	1.4	1.8	2.4	2.2	2.1	2.0	2.1
Cement.....	2.3	2.5	2.2	2.4	2.9	4.0	3.4	3.4	3.6	3.4
Lime.....	1.1	1.2	1.3	1.4	1.3	1.4	1.3	1.3	1.3	1.2
Sand and gravel.....	1.9	1.6	1.7	2.1	2.1	3.1	3.6	3.7	3.5	3.5
Stone.....	1.4	1.5	1.5	1.5	1.6	2.2	2.6	2.2	2.3	2.5
TOTALS, STRUCTURAL MATERIALS	8.1	8.0	7.9	8.8	9.7	13.1	13.1	12.7	12.7	12.7
Grand Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ Not released for publication.

² Includes minor items not specified.

Although the year 1926 was not a normal year in mineral production to the same extent as in some other productive fields, the rapid changes that have resulted from circumstances arising since then can be seen more clearly by using 1926 as a base year. Table 4 shows the indexes of volume of mineral production by principal minerals, for the years 1941-50.

4.—Indexes of Volume of Mineral Production, by Principal Minerals, 1941-50

(1926=100)

Mineral	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
METALLICS										
Cobalt.....	39.6	12.6	26.5	5.5	16.4	11.1	86.1	232.4	93.1	87.8
Copper.....	483.4	453.6	432.2	411.0	356.8	276.4	339.4	361.7	395.9	397.0
Gold.....	304.7	276.0	208.1	166.6	153.7	161.5	175.0	201.2	235.1	253.2
Lead.....	162.1	180.5	156.5	107.3	122.3	124.7	113.9	117.9	112.6	115.8
Nickel.....	429.5	434.0	43.8	417.9	373.0	292.4	361.0	400.9	391.7	376.4
Platinum metals.....	1134.6	2598.1	1768.8	1025.6	3412.2	1224.5	1048.4	1380.1	1719.2	1398.3
Silver.....	97.2	92.5	77.5	60.9	57.9	56.1	55.9	72.0	78.9	103.8
Zinc.....	341.7	387.0	407.3	367.4	345.0	313.9	277.3	312.3	384.8	417.8

4.—Indexes of Volume of Mineral Production, by Principal Minerals, 1941-50—concluded

Mineral	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
FUELS										
Coal.....	110.6	114.5	108.4	103.3	94.1	108.1	96.3	111.9	116.0	116.1
Natural gas.....	226.4	237.9	230.5	234.6	252.0	249.4	274.1	305.1	314.7	353.1
Petroleum.....	2780.6	2844.0	2758.3	2771.2	2327.6	2081.4	2110.7	3371.3	5846.0	7969.3
NON-METALLICS (EXCLUDING FUELS)										
Asbestos.....	171.0	157.3	167.2	150.1	167.1	199.8	236.9	256.5	205.8	313.3
Gypsum.....	180.3	64.1	50.6	67.5	95.0	204.9	282.6	364.0	341.1	414.9
Quartz.....	884.5	748.9	765.6	749.8	652.2	609.0	791.3	869.2	742.2	745.7
Salt.....	213.6	249.0	261.9	264.8	256.4	204.9	277.5	282.3	285.3	327.1
Sulphur ¹	673.8	787.0	667.3	642.9	648.1	608.4	674.7	536.4	678.6	780.5
STRUCTURAL MATERIALS										
Cement.....	96.1	104.8	83.9	82.6	97.3	132.8	137.1	162.2	182.8	192.3
Lime.....	208.0	213.8	219.3	213.9	201.1	203.1	236.1	254.5	246.2	271.6
Sand and gravel.....	184.7	154.0	160.4	166.0	173.9	233.4	331.9	401.3	370.2	427.1
Stone.....	124.1	124.7	112.9	93.7	97.0	125.9	170.2	182.8	217.7	282.7

¹ 1923=100, previous years not being comparable.

Subsection 2.—Provincial Distribution of Mineral Production

Since 1907, Ontario has been the principal mineral-producing province of Canada. In 1942 that Province accounted for 46 p.c. of Canada's total, but its share declined steadily to 36 p.c. in 1951. Alberta's share of the total showed the greatest increase in the ten-year period, rising from 8 p.c. to 14 p.c., and accounted for by the tremendous increase in the crude petroleum output of that Province. The proportion contributed by Quebec increased in the same period from 18 p.c. to 20 p.c. British Columbia, Saskatchewan and Manitoba remained about the same with 14 p.c., 4 p.c., and 2 p.c., respectively, while Nova Scotia decreased from 6 p.c. to 5 p.c. Newfoundland produced 4 p.c. of the total mineral production of Canada in 1951. As compared with 1950, gains in value were registered for all provinces except Nova Scotia, New Brunswick and Manitoba.

5.—Mineral Production, by Provinces, 1942-51

NOTE.—Figures for the years 1899-1910, inclusive, will be found at p. 345 of the 1933 Year Book; for 1911-28 at p. 323 of the 1939 edition; and for 1929-41 at p. 323 of the 1946 edition.

Year	Newfoundland	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	\$	\$	\$	\$	\$	\$
1942.....	...	32,783,165	3,609,158	104,300,010	259,114,946	14,345,046
1943.....	...	29,979,837	3,676,834	101,610,678	232,948,959	13,412,266
1944.....	...	33,981,977	4,133,902	90,182,553	210,706,307	13,830,406
1945.....	...	32,220,659	4,182,100	91,518,120	216,541,855	14,429,423
1946.....	...	35,350,271	4,813,166	92,785,148	191,544,429	16,403,549
1947.....	...	34,255,560	5,812,943	115,151,635	249,797,671	18,236,763
1948.....	...	56,400,245	7,003,285	152,038,867	294,239,673	26,081,349
1949.....	27,533,615	56,092,830	7,134,009	165,021,513	323,368,644	23,839,638
1950.....	25,824,047	59,482,173	12,756,975	220,176,517	366,801,525	32,691,173
1951 ¹	32,828,771	59,387,855	10,282,408	249,553,652	437,085,123	28,397,223
	Saskatchewan	Alberta	British Columbia	Yukon Territory	Northwest Territories	Canada
	\$	\$	\$	\$	\$	\$
1942.....	20,578,749	47,359,831	77,247,932	3,453,568	3,976,267	566,768,672
1943.....	26,735,984	48,941,210	68,442,386	1,625,819	2,679,993	530,053,966
1944.....	22,291,848	51,066,662	57,246,071	1,339,319	1,440,069	485,819,114
1945.....	22,336,074	51,753,237	64,063,842	1,239,058	470,812	498,755,181
1946.....	24,480,900	60,082,513	74,622,846	1,693,904	1,039,525	502,816,251
1947.....	32,594,016	67,432,270	116,772,621	2,095,508	2,720,988	644,869,975
1948.....	34,517,208	93,211,229	148,223,611	4,265,910	4,267,485	820,248,865
1949.....	36,054,536	113,728,425	136,385,911	5,099,176	6,801,729	901,110,026
1950.....	35,983,923	135,758,940	138,888,205	9,035,696	8,050,899	1,045,450,073
1951 ¹	50,907,504	173,230,766	168,293,273	9,809,223	8,229,681	1,228,005,479

[illegible]

Figures for pitchblende not released for publication.

6.—Detailed Mineral Production, by Provinces, 1950—concluded

Mineral	Newfoundland	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	North-west Territories	Yukon	Canada
Non-Metals												
(Excluding Fuels)—concluded												
Soapstone and talc.....ton	—	—	—	17,209 181,283	15,263 182,048	—	—	—	132 1,324	—	—	32,604 364,635
Sodium sulphate.....ton	—	—	—	—	—	—	130,730	—	—	—	—	130,730
Sulphur.....ton	—	—	—	144,675 627,594	13,154 131,540	—	1,615,867	—	143,343 1,430,526	—	—	1,615,867 2,189,660
Titanium dioxide.....ton	—	—	—	—	—	—	—	—	—	—	—	1,596 149,565
Totals, Non-Metals.....\$	1,290,361	5,852,709	550,206	68,823,391	10,450,339	1,438,376	2,078,565	541,987	3,695,030	—	—	94,721,564
Fuels												
Coal.....ton	—	6,478,405	607,116	—	—	—	2,203,223	8,116,220	1,730,445	—	3,703	19,139,112
Natural gas.....M cu.ft.	—	50,256,367	4,371,078	—	—	—	4,044,697	41,687,211	9,740,088	—	40,960	110,140,399
Peat.....ton	—	—	361,877	—	8,009,488	—	813,554	58,603,976	—	33,335	—	67,822,230
Petroleum, crude.....bbl.	—	—	214,665	—	3,203,795	—	71,564	2,930,199	—	12,818	—	6,433,041
Petroleum, refined.....bbl.	—	—	—	—	58	—	—	—	—	—	—	58
Petroleum, other.....bbl.	—	—	17,137	—	250,655	—	1,041,098	27,548,169	—	186,729	—	29,043,788
Totals, Fuels.....\$	—	50,256,367	4,609,733	—	4,096,375	—	5,251,058	126,833,902	9,740,088	365,474	40,960	201,193,957
Structural Materials												
Clay products, brick tile, etc. \$	31,089	1,126,969	681,139	6,324,387	9,323,283	690,730	581,506	1,050,309	1,081,466	—	—	21,790,888
Cement.....bbl.	—	—	—	6,920,413	5,313,321	1,642,312	—	1,889,713	1,975,867	—	—	16,741,826
Lime.....ton	—	—	23,604	14,523,855	10,963,896	3,963,464	—	3,364,613	3,088,296	—	—	33,804,124
Sand and gravel.....ton	20,436	—	387,431	3,823,901	6,030,228	673,070	33,364	435,342	910,676	—	—	1,324,188
Stone.....ton	1,619,389	1,600,832	4,789,585	20,313,415	30,271,214	2,720,951	2,104,797	3,866,662	5,808,218	—	—	12,281,084
Stone, dimensioned.....ton	780,315	1,488,593	2,997,779	7,172,632	15,551,406	721,494	1,439,870	2,572,795	3,709,875	—	—	73,095,163
Stone, rough.....ton	469,651	254,797	3,060,942	6,726,729	7,716,059	239,559	—	1,060,664	1,060,664	—	—	36,434,789
Stone, crushed.....ton	787,228	755,060	3,530,687	10,741,698	7,843,124	459,059	—	54,197	1,724,304	—	—	18,087,064
Totals, Structural Materials \$	1,619,068	3,370,622	7,597,036	42,586,473	49,701,917	6,507,917	2,021,376	8,377,256	10,514,647	—	—	132,296,212
Grand Totals, 1950.....\$	25,894,047	59,492,173	12,756,975	220,176,517	366,801,325	32,691,173	35,893,923	135,758,940	138,888,205	8,050,899	9,035,696	1,045,450,073
1949.....\$	27,583,615	56,092,830	7,134,009	165,021,513	323,368,644	23,339,638	36,054,536	113,728,425	136,385,911	6,801,729	5,099,176	901,110,026

Subsection 3.—Production of Metallic Minerals

The metals of chief importance in Canada are copper, gold, iron, lead, nickel, those of the platinum group, silver and zinc. These metals are dealt with individually in the following paragraphs. In addition, there are a number of metals produced in minor quantities, principally as by-products in the treatment of metalliferous ores (see Tables 2 and 6).

Copper.—Copper production increased about 2.4 p.c. in 1951 to 270,500 tons. This was the largest tonnage reported in the post-war period but it was less than the amount recovered in each of the years from 1938 to 1944, inclusive, and was about 16 p.c. below the record of 321,700 tons in 1941.

According to the preliminary figures, the output in Ontario, which usually accounts for about one-half of the total, was approximately 10 p.c. greater in 1951 than in 1950. In British Columbia and in the Manitoba-Saskatchewan producing area there were small advances over the previous year but in Quebec there was a decline of about 4 p.c. and in Newfoundland a decrease of more than 14 p.c.

About 48 p.c. of Canada's copper comes from the nickel-copper mines in the Sudbury district of Ontario. Converter copper is produced and further treated at Copper Cliff, and nickel-copper matte produced at Falconbridge is exported to Norway for refining. Mines in northern Quebec account for 26 p.c. of Canada's copper production. These ores are treated at Noranda to produce copper anodes which are shipped to Montreal, Que., for refining. Ores from the Flin Flon-Sherriitt Gordon area in northern Manitoba, and extending over the border into Saskatchewan, are also treated at Noranda and the blister copper recovered is shipped to Montreal for refining. Mines in this area account for 17 p.c. of production. British Columbia mines account annually for about 8 p.c. of Canada's copper, and concentrates produced in this area are exported to the United States for treatment. Concentrates from Newfoundland, that amount to about 1 p.c. of the total, are exported to Belgium and to the United States.

Output of refined copper was slightly greater in 1951 than in 1950, amounting to 246,000 tons. A larger percentage was channelled into Canadian industry, the amount being 134,000 tons or 54 p.c. of production compared with 107,000 tons or 45 p.c. of the total in 1950. Exports dropped off accordingly to 102,000 tons from 134,000 tons. About 51 p.c. of the 1951 exports went to the United Kingdom compared with 48 p.c. in the previous year while only 28 p.c. went to the United States as against 38 p.c. in 1950. About 37,000 tons of copper were exported in the form of ores and concentrates or in nickel-copper matte.

7.—Copper Production, by Provinces, with Total Values, 1942-51

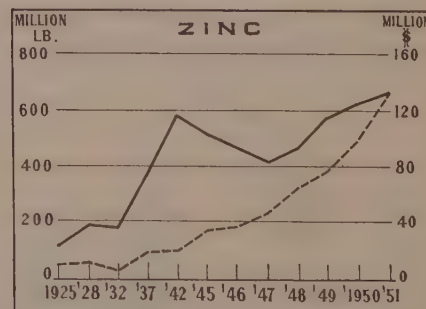
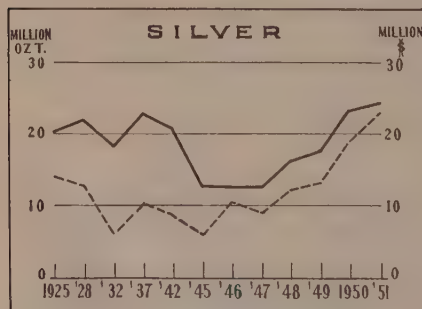
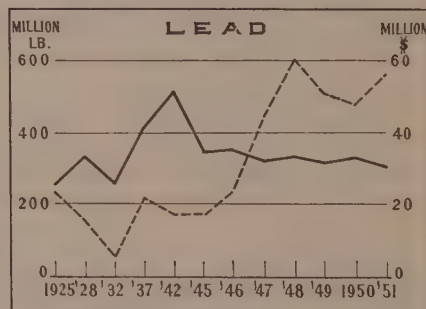
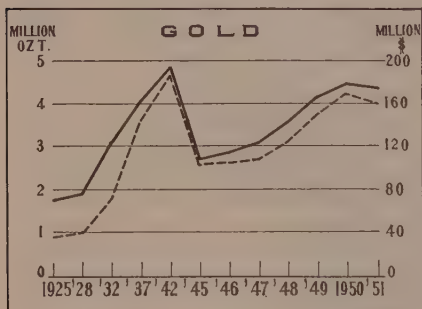
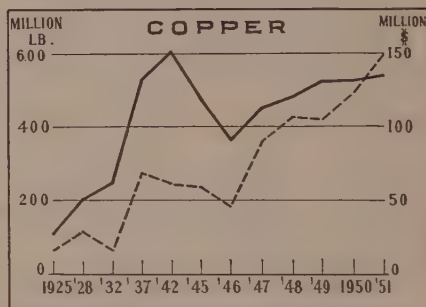
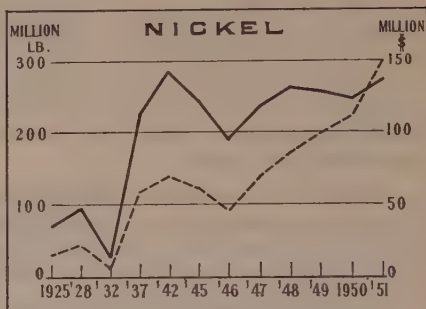
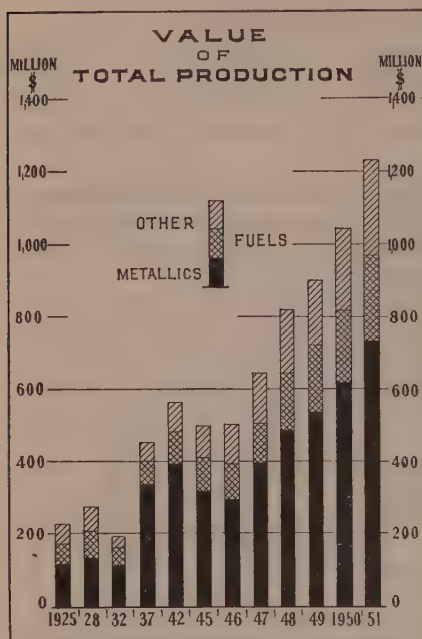
NOTE.—Figures for the years 1866-1910, inclusive, will be found at p. 272 of the 1916-17 Year Book; for the years 1911-28 at p. 335 of the 1939 edition; and for 1929-41 at p. 331 of the 1946 edition.

Year	Newfoundland	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Totals	
							Quantity	Value
	tons	tons	tons	tons	tons	tons	tons	\$
1942.....	...	70,456	154,141	23,798	28,391	25,008	301,831 ¹	60,417,372 ¹
1943.....	...	65,582	138,920	19,007	42,974	21,112	287,595	67,170,601
1944.....	...	54,027	142,654	21,939	56,757	18,152	273,535 ¹	65,257,172 ¹
1945.....	...	51,342	119,726	20,563	32,950	12,876	237,457	59,322,261
1946.....	...	34,899	89,712	19,250	31,356	8,750	183,968	46,632,093
1947.....	...	42,561	113,934	15,316	33,151	20,900	225,862	91,541,888
1948.....	...	48,813	120,383	18,960	31,074	21,502	240,732	107,159,756
1949.....	3,617	67,822	113,042	16,960	34,960	27,055	263,457	104,719,151
1950.....	3,221	72,891	117,210	20,817	28,982	21,086	264,209	123,211,407
1951P.....	2,755	69,896	128,889	15,460	31,577	21,906	270,483	149,313,083

¹ Includes 37 tons valued at \$7,561 produced in N.W.T. in 1942; and 6 tons valued at \$1,428 in 1944.

MINERAL PRODUCTION 1925-51

(QUANTITY AND VALUE OF LEADING METALLICS)



PRODUCTION ———

VALUE - - - - -

Gold.—The gradual increase in gold production in recent years in the face of rising costs was reversed in 1951 when there was a decline of about 2.5 p.c. to 4,329,000 oz t. Had it not been for the prolonged strike at the Hollinger mine, there probably would have been little difference in the figures for 1950 and 1951. The present rate of production is greater than at any other time except the five-year period from 1938 to 1942, inclusive. The record output was in 1941 at 5,345,000 oz t.

The cancellation in September 1950 of the officially controlled rates of foreign exchange and the subsequent rise of the Canadian dollar in terms of the United States dollar brought about a decline in the average price of gold to \$36.82 per oz t. in 1951, in terms of Canadian currency, from \$38.05 in 1950. On the other hand, the decision of the Government early in October 1951 to permit sales of industrial gold in the premium market, while not of much advantage in 1951, should be of considerable benefit in the future particularly to the mines receiving little help from the Emergency Gold Mining Assistance Act.

Ontario's mines accounted for over 56 p.c. of the 1951 output and Quebec's mines for nearly 25 p.c. Only the Northwest Territories and Saskatchewan showed higher figures than in 1950 but declines in other provinces were not great.

Gold still leads all other mine products in annual value of production and the gold-mining industry holds first place in Canada's mineral economy. With regard to employment, it is nearly the same as coal mining and considerably ahead of other mining industries. It spends about \$40,000,000 annually on mine and mill supplies, electricity and fuels.

8.—Quantities and Values of Gold Produced, by Provinces, 1942-51

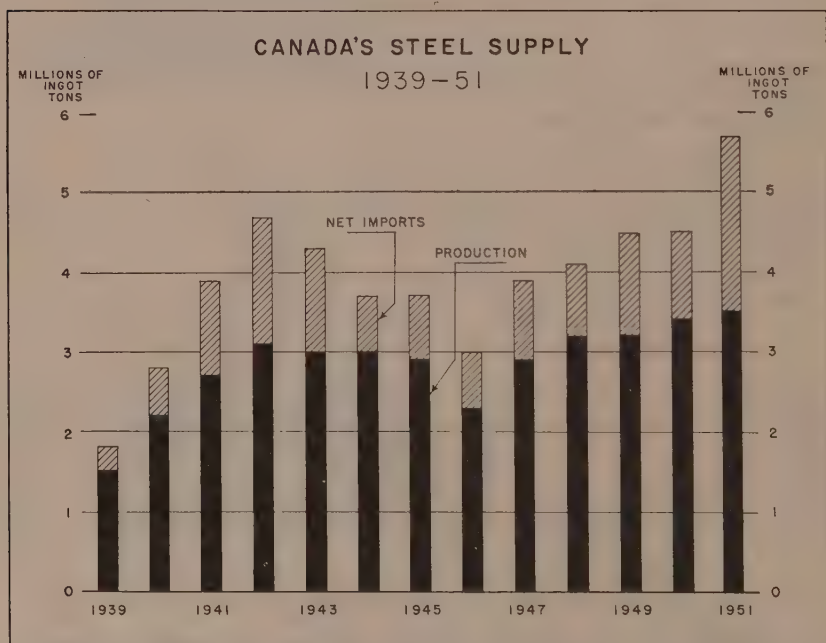
NOTE.—Values are calculated at world prices in Canadian funds. Figures for the years 1862-1910, inclusive, will be found at pp. 268-270 of the 1916-17 Year Book; for the years 1911-28 at pp. 336-37 of the 1939 edition; and for 1929-41 at p. 332 of the 1946 edition.

Year	Newfoundland		Nova Scotia		Quebec		Ontario	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	oz t.	\$	oz t.	\$	oz t.	\$	oz t.	\$
1942.....	...	...	12,989	500,076	1,092,388	42,056,938	2,763,819	106,407,032
1943.....	...	...	4,129	158,967	922,533	35,517,521	2,117,215	81,512,777
1944.....	...	...	5,840	224,840	746,784	28,751,184	1,731,836	66,675,686
1945.....	...	...	3,291	126,704	661,608	25,471,908	1,625,368	62,576,668
1946.....	...	...	4,321	158,797	618,339	22,723,958	1,813,333	66,639,988
1947.....	...	...	1,271	44,485	598,127	20,934,445	1,944,819	68,068,665
1948.....	...	...	188	6,580	770,625	26,971,875	2,095,377	73,338,195
1949.....	9,269	333,684	64	2,304	964,184	34,710,624	2,354,509	84,762,324
1950.....	9,254	352,115	65	2,473	1,094,645	41,651,242	2,481,110	94,406,236
1951P.....	8,070	297,480	17	626	1,061,113	39,102,088	2,445,902	90,131,489
Manitoba		Saskatchewan		Alberta		British Columbia		
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	oz t.	\$	oz t.	\$	oz t.	\$	oz t.	\$
1942.....	136,226	5,244,701	178,871	6,886,533	34	1,309	474,339	18,262,052
1943.....	91,775	3,533,337	174,090	6,702,465	21	808	241,346	9,291,821
1944.....	74,168	2,855,468	122,782	4,727,107	51	1,963	196,857	7,578,994
1945.....	70,655	2,720,218	108,568	4,179,868	7	269	186,854	7,193,879
1946.....	79,402	2,918,024	112,101	4,119,712	110	4,042	136,242	5,006,893
1947.....	72,906	2,551,710	93,747	3,281,145	78	2,730	249,011	8,715,385
1948.....	106,176	3,716,160	87,927	3,077,445	78	2,730	306,998	10,744,930
1949.....	137,399	4,946,364	94,208	3,391,488	115	4,140	304,307	10,955,052
1950.....	191,725	7,295,136	79,784	3,035,781	152	5,784	290,490	11,053,144
1951P.....	162,257	5,979,170	113,967	4,085,717	97	3,574	252,015	9,286,753

8.—Quantities and Values of Gold Produced, by Provinces, 1942-51—concluded

Year	Yukon Territory		Northwest Territories		Canada	
	Quantity	Value	Quantity	Value	Quantity	Value
	oz t.	\$	oz t.	\$	oz t.	\$
1942.....	83,246	3,204,971	99,394	3,826,669	4,841,306	186,390,281
1943.....	41,160	1,584,660	59,032	2,272,732	3,651,301	140,575,088
1944.....	23,818	916,993	20,775	799,838	2,922,911	112,532,073
1945.....	31,721	1,221,258	8,655	333,218	2,696,727	103,823,990
1946.....	45,286	1,664,260	23,420	860,685	2,832,554	104,096,359
1947.....	47,745	1,671,075	62,517	2,188,095	3,070,221	107,457,735
1948.....	60,614	2,121,490	101,625	3,556,875	3,529,608	123,536,280
1949.....	81,970	2,950,920	177,493	6,389,748	4,123,518	148,446,648
1950.....	93,339	3,551,549	200,663	7,635,227	4,441,227	168,988,687
1951P.....	75,042	2,765,298	210,451	7,755,119	4,328,931	159,407,314

Iron Ore.—Production of iron ore in 1951 at 4,700,000 tons was the largest on record being about 31 p.c. over the 1950 figure. This tonnage is also close to the country's present requirements but the premium quality ores from northern Ontario are in demand by the steel makers in the United States, so that there is an exchange of more than 3,000,000 tons annually.



Developments now under way in the iron-ore industry give promise of greatly increased production within the next few years. The Wabana mine in Newfoundland is being completely mechanized and output will be stepped up next year; the Helen mine in the Michipicoten district in northern Ontario has changed over to underground operations; and Steep Rock in northwestern Ontario is proceeding steadily with its expansion program. Near Marmora, in southeastern Ontario, the Bethlehem

Steel Corporation has outlined a large body of magnetite ore and is now preparing to bring the property into production. In Quebec-Labrador, the 360-mile railway from Seven Islands on the St. Lawrence River is being speeded up, additional reserves of ores have been established and initial shipments are expected in 1954.

9.—Iron-Ore Shipments and Production of Pig-Iron, Ferro-Alloys and Steel Ingots and Castings, 1942-51

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 373 of the 1936 Year Book; for the years 1911-28 at p. 340 of the 1939 edition; and for 1929-41 at p. 333 of the 1946 edition.

Year	Iron-Ore Shipments from Canadian Mines	Production of Pig-Iron			Production of Ferro-Alloys	Production of Steel Ingots and Castings
		Nova Scotia	Ontario	Canada		
	short tons	short tons	short tons	short tons	short tons	short tons
1942.....	545,306 ¹	467,951	1,507,063	1,975,014	209,017	3,109,851
1943.....	641,294	345,722	1,412,547	1,758,269	197,094	3,004,124
1944.....	553,252	395,802	1,456,826	1,852,628	182,428	3,024,410
1945.....	1,135,444	374,302	1,403,647	1,777,949	178,214	2,877,927
1946.....	1,549,523	317,180	1,089,072	1,406,252	137,822	2,327,283
1947.....	1,919,366	354,789	1,606,787	1,962,848 ¹	227,123	2,945,952
1948.....	1,337,244	438,430	1,682,309	2,125,739	232,734	3,200,480
1949.....	3,675,096	472,885	1,681,600	2,154,485	202,092	3,190,377
1950.....	3,605,291	513,029	1,804,092	2,317,121	180,499	3,383,575
1951 ^p	4,736,190	485,900	2,066,796	2,552,696	250,930	3,567,361

¹ Includes production of 1,272 tons in British Columbia.

Lead.—Output of lead at 152,500 tons in 1951, was the smallest recorded since 1944 and it was 8 p.c. below 1950 and 40 p.c. under the record production of 256,071 tons in 1942. In British Columbia, which is the principal producing area, output decreased by 11,000 tons or 8 p.c. from the 1950 figure and in Newfoundland it declined nearly 2,000 tons or 10 p.c. In Yukon Territory and in Quebec recoveries were maintained at about the same level as for 1950.

Production of refined lead, including some made at the Trail smelter from imported ores, totalled 163,000 tons of which about 60,000 tons or 37 p.c. were retained for home consumption. Here again there was a marked shift in the direction of exports with 33 p.c. going to the United Kingdom compared with only 7 p.c. in 1950, and 57 p.c. to the United States as against 91 p.c. in the previous year.

10.—Quantities and Values of Lead Produced from Canadian Ores, 1942-51

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 367 of the 1929 Year Book; for 1911-28 at p. 341 of the 1939 edition; and for 1929-41 at p. 333 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	tons	\$		tons	\$
1942.....	256,071	17,218,233	1947.....	161,668	44,200,124
1943.....	222,030	16,670,041	1948.....	167,251	60,344,146
1944.....	152,291	13,706,199	1949.....	159,775	50,488,879
1945.....	173,497	17,349,723	1950.....	165,897	47,886,452
1946.....	176,987	23,893,230	1951 ^p	152,500	56,119,829

Nickel.—About 90 p.c. of the world's nickel comes from the Sudbury area in northern Ontario. There are two large operators in this district, the International Nickel Company of Canada Limited which has a smelter at Copper Cliff and a nickel refinery at Port Colborne, Ont., and the Falconbridge Nickel Mines Limited which operates a smelter at the mine site but exports the matte to Norway for refining. Some nickel was recovered in the form of oxides and salts from cobalt ores treated at the Deloro smelter of the Deloro Smelting and Refining company.

A gain of 11 p.c. in 1951 brought the output of nickel to 137,000 tons, almost 5 p.c. below the record of 144,000 tons attained in 1943. Expansion programs are under way by both major producers in the Sudbury area. Sherritt-Gordon Mines Limited is constructing a refinery, to process Lynn Lake concentrates, at Edmonton which should be ready for operation in 1954.

Consumption of refined nickel by Canadian users was only about 2,000 tons in 1951, while exports totalled 72,357 tons. Exports of nickel in matte and oxide aggregated 58,826 tons.

11.—Quantities and Values of Nickel Produced, 1942-51

NOTE.—Figures for the years 1889-1916, inclusive, will be found at p. 368 of the 1929 Year Book; for 1911-28 at p. 342 of the 1939 edition; and for 1929-41 at p. 333 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	tons	\$		tons	\$
1942.....	142,606	69,998,427	1947.....	118,626	70,650,764
1943.....	144,009	71,675,322	1948.....	131,740	86,904,235
1944.....	137,299	69,204,152	1949.....	128,690	99,173,289
1945.....	122,565	61,982,133	1950.....	123,659	112,104,685
1946.....	96,062	45,385,155	1951 ^p	137,268	150,647,472

Metals of the Platinum Group.—This group of metals includes palladium, rhodium, ruthenium, osmium and iridium, with platinum and iridium as the most important. These metals occur in the nickel-copper ore of the Sudbury district and are recovered in the tank residues from the nickel refinery at Port Colborne, Ont. The crude residues are sent to the refinery at Acton, England, for refining. The large increase in the output of nickel-copper ores has made Canada the leading producer of platinum since 1934, when it displaced the U.S.S.R. The industrial uses of the platinum metals have expanded considerably in recent years, particularly in electrical and chemical equipment, jewellery and in medical and dental appliances. Canada produced 317,000 oz t. of platinum metals with a total value of \$22,536,000, in 1951.

12.—Quantities and Values of Platinum and Iridium¹ Produced, 1942-51

NOTE.—Records of the platinum production in Canada go back to 1887 but, prior to 1921, the amounts were comparatively small and the basis of calculation was not comparable with that now used. Figures for the years 1921-39 will be found at p. 340 of the 1940 Year Book and for 1940-41 at p. 513 of the 1951 edition.

Year	Platinum		Iridium ¹		Year	Platinum		Iridium ¹	
	ozt.	\$	ozt.	\$		ozt.	\$	ozt.	\$
1942	285,228	10,898,561	222,573	8,279,221	1947....	94,570	5,582,467	110,332	4,387,740
1943	219,713	8,458,951	126,004	5,233,068	1948....	121,404	10,622,850	148,343	6,295,132
1944	157,523	6,064,635	42,929	1,980,085	1949....	153,784	11,603,002	182,233	8,289,915
1945....	208,234	8,017,010	458,674	18,671,074	1950....	124,571	10,255,929	148,741	7,578,144
1946....	121,771	7,672,791	117,566	5,162,801	1951 ^p ...	154,956	14,681,796	162,480	7,854,083

¹ Includes also palladium, rhodium, ruthenium and osmium.
accumulated revision for previous years.

² The 1945 figures include an

Silver.—Silver production in 1951 at 24,245,000 oz t. was the greatest since 1930 and except for that one year it was better than at any time since the period from 1909 to 1916, when operations in the Cobalt district were at their height. The renewed activity in this area brought about a further increase of 21 p.c. in Ontario's output which totalled 5,357,000 oz t. in 1951. Saskatchewan's output increased by 24 p.c. over that of 1950 and in Yukon Territory there was an advance in production of nearly 13 p.c.; in other areas the recoveries were slightly less than in 1950.

Silver mining is not a distinct industry in Canada as the silver-bearing minerals occur in association with other metals of economic value. Most of the metal is obtained from the treatment of base-metal ores although substantial amounts are recovered from gold-quartz ores and from alluvial gold deposits. In 1951, approximately 35 p.c. of Canada's silver came from British Columbia, 22 p.c. from Ontario, 17 p.c. from Quebec, nearly 15 p.c. from the Yukon and Northwest Territories, and about 6 p.c. from Saskatchewan.

The average price of silver at 94.6 cents per oz t. in Canadian funds in 1951 was the highest since 1920.

13.—Quantities of Silver Produced, by Provinces, with Total Values, 1942-51

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 271 of the 1916-17 Year Book; for the years 1911-28 at p. 345 of the 1939 edition; for 1929-41 at p. 334 of the 1946 edition.

Year	Average Price per oz t. (Canadian funds)	Newfoundland	Nova Scotia	Quebec	Ontario	Manitoba
	cts.	oz t.	oz t.	oz t.	oz t.	oz t.
1942.....	42.17	...	446	1,655,042	4,452,787	821,824
1943.....	45.84	...	144	2,212,115	2,671,320	587,279
1944.....	43.00	...	188	2,500,681	3,143,275	569,873
1945.....	47.00	...	112	2,149,570	3,185,369	533,883
1946.....	83.65	...	146	1,916,453	2,485,215	528,017
1947.....	72.00	...	97	2,134,189	2,342,032	424,265
1948.....	75.00	...	8	2,376,754	3,210,107	737,298
1949.....	74.25	585,966	3	3,250,578	2,562,859	554,266
1950.....	80.82	575,524	2	4,343,379	4,408,620	893,099
1951 ¹	94.59	513,039	—	4,201,879	5,357,440	579,840
	Saskatchewan	British Columbia	Yukon Territory	Northwest Territories	Canada ¹	
	oz t.	oz t.	oz t.	oz t.	oz t.	oz t.
1942.....	2,664,132	10,596,204	482,133	22,531	20,695,101	8,726,296
1943.....	2,812,624	8,995,488	52,348	13,250	17,344,569	7,849,111
1944.....	1,735,773	5,631,572	32,066	13,677	13,627,109	5,859,656
1945.....	1,426,457	5,620,323	25,158	2,033	12,942,906	6,083,166
1946.....	1,498,496	6,078,419	31,230	6,112	12,544,100	10,493,139
1947.....	1,282,546	5,903,367	372,051	45,355	12,504,018	9,002,893
1948.....	1,323,900	6,717,908	1,718,618	25,382	16,109,982	12,082,487
1949.....	1,482,009	7,573,506	1,562,730	70,505	17,641,493	13,098,808
1950.....	1,207,796	8,528,107	3,202,779	62,111	23,221,431	18,767,561
1951 ¹	1,494,239	8,424,935	3,612,900	60,668	24,244,949	22,933,074

¹ Includes relatively small quantities produced in Alberta.

Zinc.—In contrast to copper, lead and nickel, the 1951 output of zinc was higher than in the peak war years and exceeded the former record year 1950 by about 6.6 p.c. or 334,000 tons. In British Columbia and in the Manitoba-Saskatchewan area there were production gains of about 10 p.c., and there was also a

substantial increase in Newfoundland. Quebec, which is second among the provinces in zinc production, accounted for about 26 p.c. of the Canada total, the output being practically the same as in 1950.

About 65 p.c. of the total zinc is refined in Canada and a considerable tonnage of zinc is recovered at Trail, B.C., from the treatment of imported ores. Output totalled 219,000 tons in 1951 of which about 61,000 tons were shipped to Canada users. Exports of refined zinc totalled 146,000 tons, including 84,000 tons to the United States and 55,000 tons to the United Kingdom. The percentage shipped to the United Kingdom rose to 38 p.c. from 24 p.c. in 1950 while that for the United States dropped to 58 p.c. from 74 p.c.

14.—Quantities and Values of Zinc Produced, 1942-51

NOTE.—Figures for the years 1911-28 are given at p. 347 of the 1939 Year Book; for 1929-41 at p. 335 of the 1946 edition.

Year	Quantity ¹	Value	Average Price per lb.	Year	Quantity ¹	Value	Average Price per lb.
	tons	\$	cts.		tons	\$	cts.
1942.....	290,129	19,792,579	3.411	1947.....	207,863	46,686,010	11.230
1943.....	305,377	24,430,174	4.000	1948.....	234,164	65,237,956	13.930
1944.....	275,412	23,685,405	4.300	1949.....	288,262	76,372,147	13.247
1945.....	258,607	33,308,556	6.440	1950.....	313,227	98,040,145	15.650
1946.....	235,310	36,755,450	7.810	1951 ^p	333,936	132,906,483	19.900

¹ Estimated foreign smelter recoveries and refined zinc produced in Canada.

Subsection 4.—Production of Non-Metallic Minerals (Excluding Fuels)

The most important minerals in this group are asbestos, salt, gypsum and sulphur, but it also includes numerous other items such as feldspar, graphite, iron oxide, magnesitic dolomite, mica, nepheline syenite, peat moss, silica brick, sodium sulphate, soapstone and talc (*see* Tables 2 and 6).

Asbestos.—The 1951 figures indicate a gain of almost 11 p.c. over 1950 in output of asbestos to 967,000 tons, including 941,000 tons from Quebec and 26,000 tons from Ontario. Except for 1949, when a labour dispute kept the mines idle for an extended period, there has been a remarkable growth in this industry in recent years and further expansion is under way involving expenditures of about \$35,000,000, mostly in Quebec. The Munro mine near Matheson, Ont., has worked at capacity since it started in 1950. At present the Cassian property in British Columbia is being made ready for production.

15.—Quantities and Values of Asbestos Produced, 1942-51

NOTE.—Figures for the years 1896-1910, inclusive, will be found at p. 424 of the 1911 Year Book; for the years 1911-28 at p. 354 of the 1939 edition; and for 1929-41 at p. 353 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	tons	\$		tons	\$
1942.....	439,459	22,663,283	1947.....	661,821	33,005,748
1943.....	467,196	23,169,505	1948.....	716,769	42,231,475
1944.....	419,265	20,619,516	1949.....	574,906	39,746,072
1945.....	466,897	22,805,157	1950.....	875,344	65,854,568
1946.....	558,181	25,240,562	1951 ^p	967,375	78,792,067

Salt.—Salt is obtained from brine wells in the Provinces of Ontario, Manitoba and Alberta, but in Nova Scotia it is recovered by mining rock-salt and by evaporation from brine. Domestic production is sold principally to the dairy, meat-curing and canning industries, to fisheries, to highways and transport departments, to agriculturists for use as a soil sweetener, to chemical industries, and as table salt. About 50 p.c. of the salt production is used in making caustic soda, soda ash and related chemicals. In 1951, Ontario produced about 80 p.c. of the Canada total.

16.—Quantities of Salt Produced, by Provinces, with Total Values, 1942-51

NOTE.—Figures for the years 1926-41 are given at p. 354 of the 1946 Year Book.

Year	Nova Scotia	Ontario	Manitoba	Saskatchewan	Alberta	Canada	
	tons	tons	tons	tons	tons	tons	\$
1942.....	50,199	558,407	22,706	—	22,360	653,672	3,844,187
1943.....	47,775	594,889	27,523	—	17,499	687,686	4,379,378
1944.....	38,809	603,806	27,267	—	25,335	695,217	4,074,021
1945.....	37,825	578,697	27,133	—	29,421	673,076	4,054,720
1946.....	38,371	441,679	26,166	—	31,769	537,985	3,626,165
1947.....	40,107	633,766	24,974	—	29,698	728,545	4,436,930
1948.....	61,799	619,598	25,251	—	34,613	741,261	4,836,028
1949.....	86,612	607,206	18,734	8,103	28,359	749,015	5,566,725
1950.....	101,930	696,582	16,592	18,186	25,606	858,896	7,011,306
1951 ¹	125,236	770,992	16,800	29,138	20,000	962,166	7,694,063

Gypsum.—The use of gypsum in the building trades has increased rapidly and Canada has extensive deposits of gypsum favourably situated for commercial developments. A production peak was reached in 1950 at 3,666,336 tons, the 1951 output being slightly lower. About 85 p.c. of the output is exported each year, mainly in crude form to the United States.

17.—Quantities and Values of Gypsum Produced, by Provinces, 1942-51

NOTE.—Figures for the years 1926-41 are given at p. 321 of the 1943-44 Year Book.

Year	Nova Scotia	New Brunswick	Ontario	Manitoba	British Columbia	Canada	
	Quantity	Quantity	Quantity	Quantity	Quantity	Quantity	Value
	tons	tons	tons	tons	tons	tons	\$
1942.....	394,216	36,623	82,796	29,218	23,313	566,166	1,254,182
1943.....	255,736	36,263	92,448	37,989	24,412	446,848	1,381,468
1944.....	401,284	42,040	90,288	38,330	24,222	596,164	1,511,978
1945.....	634,960	46,755	92,174	42,275	23,617	839,781	1,783,290
1946.....	1,538,738	38,839	122,524	63,187	47,649	1,810,937	3,671,503
1947.....	2,137,704	65,939	155,249	79,356	58,736	2,496,984	4,734,853
1948.....	2,795,848	61,534	182,303	94,698	82,426	3,216,809	5,548,245
1949.....	2,555,795	80,436	203,187	94,918	79,913	3,014,249	5,423,690
1950.....	3,185,199	82,641	199,314	114,555	84,627	3,666,336	6,707,506
1951 ¹	2,829,336	100,000	225,000	115,000	104,989	3,374,325	5,576,093

Sulphur.—Sulphur production statistics given in Table 18 represent the quantity and value of sulphur contained in iron pyrites shipped, plus the quantity and value of sulphur reclaimed for acid manufacture, etc., from smelter fumes. The Shell Oil Company and the Royalite Oil Company have recently completed plants in Alberta to recover elemental sulphur from natural gas. These units have a capacity of nearly 20,000 tons annually. Canadian Industries Limited has a plant under construction at Copper Cliff, Ont., to make liquid sulphur dioxide, utilizing the smelter gases from International Nickel's smelter at that point.

18.—Quantities and Values of Sulphur Produced, 1942-51

NOTE.—Figures for the years 1926-41 are given at p. 355 of the 1946 Year Book.

Year	Quantity	Value	Year	Quantity	Value
	tons	\$		tons	\$
1942.....	303,714	1,994,891	1947.....	221,781	1,822,867
1943.....	257,515	1,753,425	1948.....	229,463	1,836,358
1944.....	248,088	1,755,739	1949.....	261,871	2,039,384
1945.....	250,114	1,881,321	1950.....	301,172	2,189,660
1946.....	254,771	1,784,666	1951.....	368,529	3,005,714

Subsection 5.—Production of Fuels

Information on the coal reserves of Canada is given in the Year Book 1950, pp. 516-518.

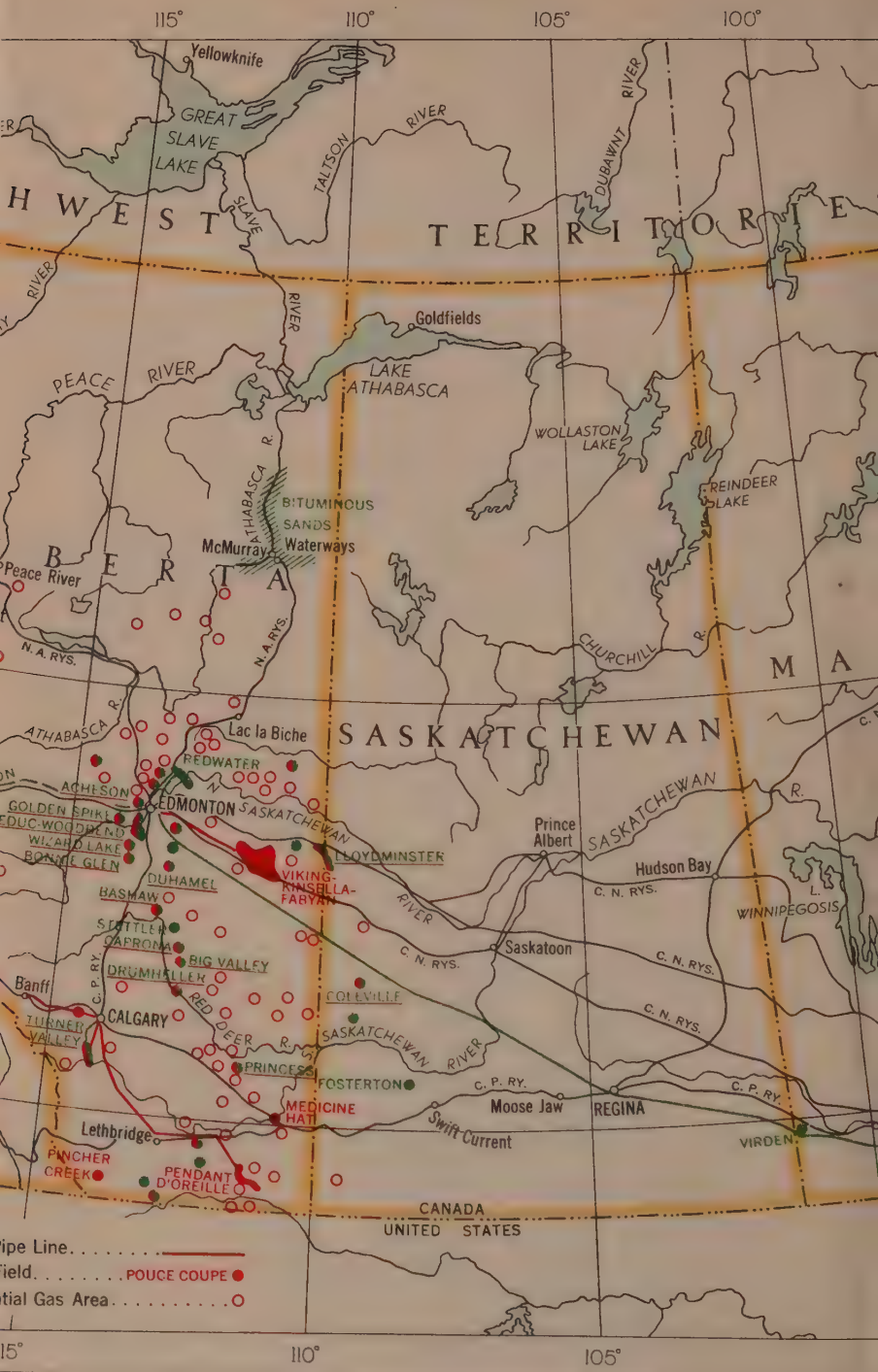
CANADIAN CRUDE PETROLEUM SITUATION*

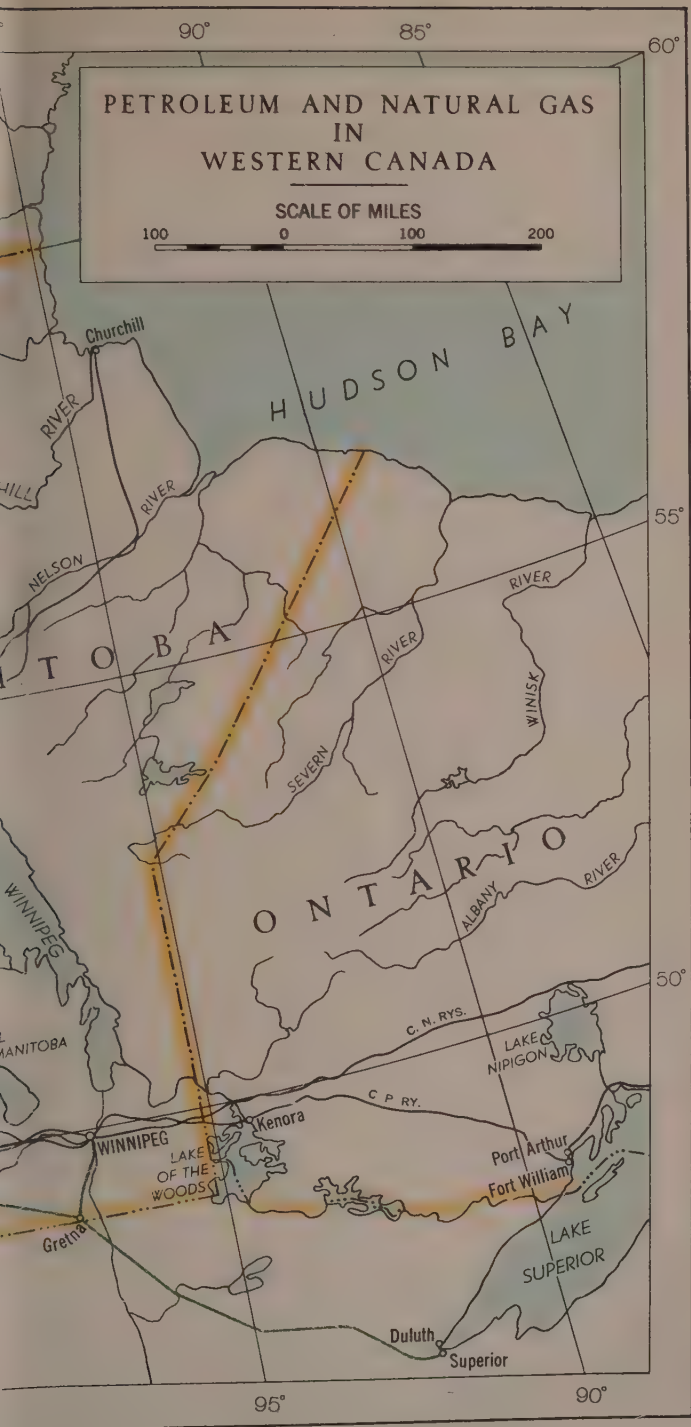
The mineral industry in Canada has shown a rapid and very substantial expansion during the past few years but no part of it has quite equalled the spectacular developments that have resulted from the major discoveries of petroleum and natural gas in Western Canada. During World War II the tempo of exploration was speeded up by the need for oil products and by the encouragement given to the search for new supplies through tax concessions granted by the Federal Government. At that time Turner Valley in the foothills of the Rockies, 35 miles southwest of Calgary, was the main producing field, a peak production of about 29,000 bbl. a day having been reached in 1942. This was not sufficient to supply the military and restricted civilian requirements of the Prairie Provinces, where light oil was needed particularly for refining into products required by the Commonwealth air-training project. However, some small fields were found and, in the light of present events, two occurrences were of major significance although not recognized as such at the time. The first of these was the discovery in 1944 of light crude oil in the Devonian limestones at Princess, on the plains, 100 miles east of Calgary. This was the first discovery of Devonian oil in Alberta. The second was the development, through the Canol project, of the Norman Wells field in the Mackenzie River Valley, 50 miles south of the Arctic circle. This field was found in 1920 also in Devonian rocks but, owing to lack of markets for the oil, there had been no significant development. Under the Canol project many wells were drilled and it was recognized that the productive horizon was a coral reef. The Princess field is 1,150 miles distant from Norman Wells and although both were yielding oil from the Devonian, no special significance was attached to this fact at that time.

The discovery of the Leduc field southwest of Edmonton in 1947 completely changed the whole oil aspect in Western Canada. The oil at Leduc, like that at Norman Wells, was found in a Devonian coral reef. United States oil companies in particular were very familiar with coral-reef production in the Permian basin of West Texas and New Mexico and quickly recognized the significance of the new Leduc discovery. Consequently, the Leduc discovery, both from its character and the size of the possible productive area, attracted more than usual attention

* Prepared by Dr. G. S. Hume, Director-General of Scientific Services, Department of Mines and Technical Surveys.







and a number of companies began to study the situation with respect to the acquisition of lands and the right to explore for oil. The discovery of the Redwater field in 1948 followed by the discovery of the Woodbend extension of the Leduc field, by Imperial Oil Limited, led to increased exploration activity by many companies, which, as new finds have been made, has been quickly expanded to cover not only the desirable prospective oil lands in Alberta, Saskatchewan and Manitoba but has been extended northwestward involving much of the northeastern corner of British Columbia east of the mountains and embracing large areas within the Northwest Territories south and west of Great Slave Lake.

In Alberta there have been numerous oil fields discovered in a tract of land extending from Edmonton to Drumheller. Development began with the discovery of the Stettler field in 1949, followed by such finds as Duhamel, Big Valley, Caprona, New Norway, Bashaw and Drumheller. To the west of Edmonton there is the Acheson-Stony Plain field and west of Leduc the Golden Spike field. To the south of Leduc there are a number of small oil fields—Wizard Lake found in 1951 and Bonnie Glen found early in 1952 are major discoveries in this area. Golden Spike, Wizard Lake and Bonnie Glen are of particular importance in that, although their real extent may not be large in comparison with some of the other fields, the thickness of oil-saturated coral formation is exceptional, in all three exceeding 500 ft., and in Bonnie Glen reaching the phenomenal thickness of 688 ft. This means that production per acre will be very large in comparison with some of the other fields where, as for example at Leduc, there are two oil zones in the Devonian each with a thickness of approximately 35 ft. The search for these pools of small surface extent, therefore, must be very intense, with no small area neglected in the promising oil territory.

In addition to the discoveries in the area of Edmonton and the southern part of Alberta, there have been two recent discoveries of oil in Saskatchewan of a quality considerably lighter than the oil being produced from the Lloydminster and Coleville fields. Southern Saskatchewan and southwestern Manitoba are occupied by the northward part of the Williston basin of North Dakota. In the Williston basin in United States there have recently been two very important oil discoveries, so that the finding of oil in Saskatchewan and small but significant discoveries in southwestern Manitoba have had a very stimulating effect in encouraging development in this part of Western Canada. To the northwest of Edmonton in the Peace River area of Alberta, there have been two oil discoveries and a number of very significant gas discoveries. In the St. John area of British Columbia there has also been a light oil discovery, which, although not large, is very important as indicative of excellent oil prospects, while recent gas discoveries give promise of large production.

Some indication of the amount of exploration being done in Western Canada in the search for oil and gas can be obtained from the drilling record. In 1951, 1,371 wells were completed in the four western provinces. The main part of this development was in Alberta where 1,228 completed wells accounted for more than 500,000 ft. of drilling in each of the last seven months of the year. These wells consisted of 757 oil wells, of which 35 were new discoveries and the remainder were development wells in oil fields, and 166 gas wells, of which 63 were new discoveries and 355 dry holes. Recoverable reserves of petroleum in Alberta are now estimated at about 1,500,000,000 bbl. In Saskatchewan, 112 wells were completed consisting of 53 oil wells, of which 2 were new discoveries, and 6 gas wells, of

which 3 were new discoveries and the remainder dry holes. Manitoba produced its first oil from the southwestern part of the Province where two oil discoveries were made out of 16 wells drilled, of which all but 5 were dry holes. British Columbia also had its first crude oil discovery and, of 15 wells completed, one is an oil well, 3 are gas wells and 11 failed to find commercial production of either oil or gas.

Production of petroleum in Western Canada is now largely governed by the outlets and, at present, potential capacity exceeds actual output by a considerable amount. In 1951, production in Alberta showed a phenomenal increase of 68 p.c. over 1950 and amounted to 46,403,000 bbl. This was largely due to the opening up of Ontario markets through the building of the 1,126-mile interprovincial pipe line from Edmonton to Superior, Wis., U.S.A., at the head of the Great Lakes. At the end of 1951, Alberta had a total of 2,747 wells producing or capable of producing oil compared with 1,988 at the end of 1950 and 1,220 at the end of 1949. Peak production was reached during the week of Aug. 20, 1951, when the daily average was 189,423 bbl. Output during the winter months, however, is much lower, and dropped to approximately 82,000 bbl. a day during the week ended Dec. 31, 1951. Potential production, however, is said to be around 200,000 bbl. a day and, owing to an expected increase, plans are now under way to build a pipe line from Edmonton to Vancouver via Yellowhead Pass, Kamloops, Merritt, Hope and Chilliwack to Burnaby. Initially this pipe line will supply only the needs of the Canadian west coast market and thus is designed for about 75,000 bbl. a day. By increasing the number of pumping stations, however, the pipe line will be capable of transporting 200,000 bbl. a day and it is hoped that part of the market in the Pacific northwest area of United States may be opened to this outlet. In addition to this western outlet, which will not be completed until 1953, the interprovincial pipe line outlet to Superior is being increased by looping the line around the high-pressure parts of the first line. Additional storage is also being built at Superior, Wis., and two new tankers, each with a capacity of 115,000 bbl., will be put into service on the Great Lakes during the 1952 shipping season. In conjunction with this the Imperial Oil refinery at Sarnia is being increased to a capacity of 71,000 bbl. a day and Canadian oil companies have built a new 20,000-bbl.-a-day refinery at nearby Froomfield. Imperial Oil Limited also has under construction a products line from Sarnia to Toronto via London and Hamilton, Ont.

The discoveries of oil in Western Canada have been accompanied by greatly increased gas supplies and the problem of the export of gas is now before the Alberta Government. The availability of large amounts of natural gas as well as gaseous products from additional refineries has led to a great development of petro-chemical industries in Alberta, principally in the Edmonton area. There are, however, large shut-in gas supplies and these have been increased enormously during the past few years.

The greatly accelerated pace of activity in exploration during 1951, when \$200,000,000 was spent, and the announcement by various oil companies of even greater expenditures in 1952 indicate continued rapid growth of the petroleum and natural gas industries in Western Canada. It is hoped, even though Western Canada's oil cannot reach the markets in the far parts of Eastern Canada on account of transportation difficulties, that production will soon reach the point of self-sufficiency on balance where exports are equal to imports. Prairie self-sufficiency was reached in 1950 and, with the building of the trans-mountain pipe line, Western Canada may be wholly supplied by 1953 by Canadian oil although,

to do this, refining capacity on the west coast must be sufficient in amount and properly adapted to meet the market demands. It is not unlikely that Ontario will continue to receive increasingly large amounts of crude oil from Western Canada. However, the interrupted shipping season on the Great Lakes during the winter season is a great handicap to easy transportation and, for this reason, it is not at present clear how large a part of the Ontario or Quebec markets can be supplied from Western Canada, particularly as about one-third of the refining capacity of Canada is now centred in the Montreal area which is supplied by pipe line from Portland, Maine, with oil largely from Venezuela. But even though Western Canada's oil may be at some disadvantage in reference to easy markets of large size, there can be no doubt that, as a result of developments now under way, Canada will continue to enjoy the benefits that come with large new oil and gas discoveries.

Coal Production.—More coal was produced by Canadian mines in 1950 than in any other year, the total of 19,139,112 tons being slightly above the 1949 production. In 1951, increases were reported for New Brunswick, Saskatchewan and British Columbia, but output elsewhere decreased considerably; total production was lower in Nova Scotia, Alberta and Yukon Territory as compared with 1950.

19.—Coal Production, by Provinces, 1942-51

NOTE.—Figures for the years 1874-1910, inclusive, will be found at p. 419 of the 1911 Year Book; for the years 1911-28 at p. 348 of the 1939 edition; and for 1929-41 at p. 347 of the 1946 edition.

Year	Nova Scotia	New Brunswick	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon Territory	Canada	
								Quantity	Value
	tons	tons	tons	tons	tons	tons	tons	tons	\$
1942....	7,204,852	435,203	1,265	1,301,116	7,754,053	2,168,541	—	18,865,030	62,897,581
1943....	6,103,086	372,873	999	1,665,972	7,676,726	2,039,402	—	17,859,057	62,877,549
1944....	5,745,671	345,123	—	1,372,766	7,428,708	2,134,231	—	17,026,499	70,433,169
1945....	5,112,615	361,184	—	1,532,995	7,800,151	1,699,768	—	16,506,713	67,588,402
1946....	5,452,898*	366,735*	—	1,523,786*	8,826,239*	1,636,792*	—	17,806,450*	75,361,481*
1947....	4,118,196	345,194	—	1,571,147	8,070,430	1,763,899	—	15,868,866	77,475,017*
1948....	6,430,991	522,136	—	1,589,172	8,123,255	1,780,334	3,801	18,449,689	106,684,008
1949....	6,181,779	540,806	—	1,870,487	8,616,855	1,906,963	3,156	19,120,046	110,915,121
1950....	6,478,405	607,116	—	2,203,223	8,116,220	1,730,445	3,703	19,139,112	110,140,399
1951p..	6,370,000	650,000	—	2,230,000	7,750,000	1,746,530	3,470	18,750,000	110,050,000

Coal Consumption.—The sources of coal consumed in Canada in the years 1942-51 are shown in Table 22 and detailed figures of coal made available for consumption in 1951 are given in Table 23; the difference between the totals of the two tables in the same year is accounted for by the fact that coal received may be held in bond at Canadian ports and not cleared for consumption until required, while coal received in previous years may be taken out of bond (cleared for consumption) in a later year. Normally, the coal made available for consumption is greater than the apparent domestic consumption, since coal is landed at Canadian ports and re-exported or ex-warehoused for ships' stores without being taken out of bond but, while remaining in bond at the port, it is available for domestic consumption if required.

20.—Imports¹ of Anthracite, Bituminous and Lignite Coal, 1942-51

NOTE.—Anthracite dust is included under anthracite coal. Figures for the years 1868-1910, inclusive, will be found at p. 420 of the 1911 Year Book; for the year 1911-28 at p. 349 of the 1939 edition; and for 1929-41 at p. 348 of the 1946 edition.

Year	Anthracite		Bituminous ²		Lignite		Totals ³	
	tons	\$	tons	\$	tons	\$	tons	\$
1942.....	4,911,625	31,506,629	20,025,483	50,343,442	239	1,148	24,937,347	81,851,219
1943.....	4,480,285	30,918,555	23,628,300	70,325,413	337	1,487	28,108,922	101,245,455
1944.....	4,452,991	33,417,990	24,270,692	79,718,988	171	1,038	28,723,854	113,138,016
1945.....	3,412,739	27,568,369	21,648,350	74,861,376	467	2,229	25,061,556 ³	102,431,974 ³
1946.....	4,631,887	41,987,460	21,475,040	78,366,184	172	776	26,106,599 ³	120,354,420 ³
1947.....	4,281,682	41,012,759	24,610,045	97,935,771	203	1,255	28,891,930 ³	138,949,785 ³
1948.....	5,244,837	56,380,098	25,614,443	129,929,580	14,632	78,073	30,873,912 ³	186,387,751 ³
1949.....	3,945,135	45,656,328	18,233,528	95,403,106	16,547	89,629	22,195,210 ³	141,149,063 ³
1950.....	4,286,383	54,285,320	22,660,969	120,443,963	7,471	34,848	26,954,823 ³	174,764,131 ³
1951 ⁴	3,853,431	51,244,639	22,938,824	116,802,323	9,150	42,486	26,801,405 ³	168,089,448 ³

¹ Entered for consumption.

² Includes coal ex-warehoused for ships' stores.

³ Canada

also imported 142,435 tons of briquettes of coal or coke valued at \$1,114,617 in 1945, 182,231 tons valued at \$1,449,221 in 1946, 245,678 tons valued at \$2,233,654 in 1947, 308,753 tons valued at \$3,204,839 in 1948, 186,971 tons valued at \$2,185,707 in 1949, 191,134 tons valued at \$2,316,570 in 1950, and 170,157 tons valued at \$2,061,798 in 1951.

21.—Exports of Coal Produced in Canada, 1942-51

NOTE.—Figures for the years 1868-1910, inclusive, will be found at p. 421 of the 1911 Year Book; for the years 1911-28 at p. 349 of the 1939 edition; and for 1929-41 at p. 348 of the 1946 edition.

Year	Quantity		Value	Year	Quantity		Value
	tons	\$			tons	\$	
1942.....	815,585	4,278,345	1947.....	714,549	5,440,788	1948.....	1,273,262
1943.....	1,110,101	5,428,362		1,273,262	11,555,985		432,043
1944.....	1,016,240	5,984,827		1949.....	3,563,892		394,961
1945.....	840,708	5,303,543		1950.....	3,198,040		435,083
1946.....	862,439	5,946,224		1951 ⁴	3,495,664		

22.—Consumption of Canadian and Imported Coal in Canada, by Quantities and Percentages, 1942-51

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 354 of the 1921 Year Book; for the years 1911-28 at p. 350 of the 1939 edition; and for 1929-41 at p. 349 of the 1946 edition.

Year	Canadian Coal ¹		Imported Coal 'Entered for Consumption'				Grand Total	Consumption Per Capita ³
			From U.S.A.	From United Kingdom	Total ²			
	tons	p.c.	tons	tons	tons	p.c.	tons	tons
1942.....	17,725,761	42.0	24,140,841	388,948	24,529,361	58.0	42,255,122	3.626
1943.....	16,321,006	37.1	27,303,776	391,475	27,695,098	62.9	44,016,104	3.732
1944.....	15,660,808	35.7	27,948,008	218,511	28,166,201	64.3	43,827,009	3.669
1945.....	15,227,819	38.3	24,505,241	28,388	24,521,528	61.7	39,749,347	3.293
1946.....	16,502,508	39.0	25,639,541	101,580	25,740,704	61.0	42,243,212	3.437
1947.....	14,673,967	34.0	28,410,149	62,777	28,462,242	66.0	43,136,209	3.437
1948.....	16,928,028	36.0	30,295,841	162,550	30,454,917	64.0	47,382,945	3.695
1949.....	18,104,626	45.3	21,501,583	331,457	21,833,067	54.7	39,937,683	2.970
1950.....	18,224,944	40.6	26,224,893	423,874	26,649,049	59.4	44,873,993	3.273
1951 ⁴	17,571,154	39.8	26,233,312	291,656	26,523,921	60.2	44,095,075	3.148

¹ The sum of Canadian coal mines' sales, colliery consumption, coal supplied to employees and coal used in making coke, etc., less the tonnage of coal exported.

² Includes small tonnages from countries

other than the United Kingdom and the United States. Deductions have been made from this column to take account of foreign coal re-exported from Canada and bituminous coal ex-warehoused for ships' stores.

³ Figures based on estimates of population given at p. 143.

23.—Coal Output, Exports, Imports and Coal made available for Consumption in Canada, 1950 and 1951

NOTE.—For details by provinces, see D.B.S. Annual Report, *The Coal Mining Industry*.

Grade of Coal	Canadian Coal				Imported Coal ¹		Coal, Made Available for Consumption	
	Output		Exported					
	1950	1951	1950	1951	1950	1951	1950	1951
	tons	tons	tons	tons	tons	tons	tons	tons
Anthracite.....	—	—	—	—	4,467,111	3,891,832	4,467,111	3,891,832
Bituminous.....	13,614,316	13,363,488	380,879	303,667	22,593,468	22,459,357	35,826,905	35,519,178
Sub-bituminous...	3,321,573	3,000,017	—	294	—	—	3,321,573	2,999,723
Lignite.....	2,203,223	2,223,318	14,082	957	—	—	2,189,141	2,222,361
Totals.....	19,139,112	18,586,823	394,961	304,918	27,060,579	26,351,189	45,804,730	44,633,093

¹ Coal reaching Canadian ports whether or not it is cleared through customs.

included with bituminous.

² Lignite coal

Excludes 168,224 tons of imported briquettes in 1950 and 134,928 tons in 1951.

Crude Petroleum Production.—Output of crude oil totalled over 48,000,000 barrels for Canada in 1951, 96 p.c. of which came from Alberta wells. The rapid expansion of the crude petroleum industry in Western Canada is outlined in the Special Article on pp. 524-527.

24.—Quantities and Values of Crude Petroleum Produced, by Provinces, 1942-51

NOTE.—Figures for the years 1936-41 will be found at p. 476 of the 1948-49 edition of the Year Book.

Year	New Brunswick	Ontario	Alberta	Saskatchewan	Northwest Territories	Canada
QUANTITIES						
	bbl.	bbl.	bbl.	bbl.	bbl.	bbl.
1942.....	28,089	143,845	10,117,073	—	75,789	10,364,796
1943.....	24,530	132,492	9,601,530	—	293,760	10,052,302
1944.....	23,296	125,067	8,727,366	—	1,223,675	10,099,404
1945.....	30,140	113,325	7,979,786	14,374	345,171	8,482,796
1946.....	28,584	123,082	7,137,921	118,686	177,282	7,585,555
1947.....	23,129	131,295	6,770,477	540,117	227,474	7,692,492
1948.....	21,372	176,989	10,888,592	849,166	350,541	12,286,660
1949.....	19,544	260,670	20,087,418	782,188	155,528	21,305,348
1950.....	17,137	250,655	27,548,169	1,041,098	186,729	29,043,788
1951 ¹	15,000	201,800	46,403,000	1,250,000	215,000	48,096,800 ¹
VALUES						
	\$	\$	\$	\$	\$	\$
1942.....	39,467	306,242	15,514,665	—	108,477	15,968,851
1943.....	34,342	211,356	15,724,518	—	400,201	16,470,417
1944.....	32,832	296,420	14,468,061	—	632,587	15,429,900
1945.....	42,413	268,478	13,169,692	15,362	136,303	13,632,248
1946.....	40,018	291,719	14,347,933	135,990	173,392	14,989,052
1947.....	32,351	350,000	18,078,907	614,156	500,238	19,575,682
1948.....	29,920	608,109	35,127,751	976,541	676,574	37,418,895
1949.....	27,362	901,143	58,999,936	836,941	353,108	61,118,490
1950.....	23,992	892,000	82,216,492	1,134,797	352,656	84,619,937
1951 ¹	21,000	706,000	118,684,350	1,562,000	404,200	121,407,550 ¹

¹ Includes Manitoba production of 12,000 bbl. valued at \$30,000.

Natural Gas Production.—Alberta accounts for about 87 p.c. of Canada's production of natural gas. It is estimated that the total output for all provinces was almost 74,000,000,000 cu. ft. in 1951, of which 64,000,000,000 cu. ft. was from Alberta's wells. Ontario's production amounted to almost 9,000,000,000 cu. ft. in 1951. (See also pp. 480-481.)

25.—Quantities and Values of Natural Gas Produced, by Provinces, 1942-51

NOTE.—For the years 1892-1919, see the Annual Report, *Mineral Production of Canada, 1928*, p. 188; for the years 1920-28 see p. 347 of the 1940 Year Book; and for 1929-41, p. 350 of the 1946 edition.

Year	New Brunswick		Ontario		Alberta		Canada ¹	
	M cu. ft.	\$	M cu. ft.	\$	M cu. ft.	\$	M cu. ft.	\$
1942.....	619,380	299,688	10,476,770	6,809,901	34,482,585	6,146,146	45,697,359	13,301,655
1943.....	675,029	327,787	7,914,408	6,543,913	35,569,078	6,241,815	44,276,216	13,159,418
1944.....	702,464	341,636	7,082,508	4,694,097	37,161,570	6,339,817	45,067,158	11,422,541
1945.....	653,230	317,568	7,199,970	4,837,586	40,393,061	7,095,910	48,411,585	12,309,564
1946.....	541,010	262,441	7,051,309	4,656,528	40,097,096	7,184,006	47,900,484	12,165,050
1947.....	489,810	279,790	7,785,921	5,334,991	44,106,643	7,745,886	52,656,567	13,429,558
1948.....	420,352	287,446	8,590,429	6,958,247	48,965,217	8,324,087	58,603,269	15,632,507
1949.....	375,035	146,864	8,024,213	8,826,634	51,179,779	2,558,989	60,457,177	11,620,302
1950.....	361,877	214,665	8,009,488	3,203,795	58,603,976	2,930,199	67,822,230	6,433,041
1951P.....	257,700	191,417	8,603,517	3,011,220	64,112,000	3,205,600	73,838,217	6,504,237

¹ Includes small amounts produced in Saskatchewan and the Northwest Territories.

Subsection 6.—Production of Structural Materials

Production of structural materials is dependent upon the activity of the construction industry; output in 1951 reached a record value of \$145,496,000. This group includes clay and clay products (brick, drain tile, sewer pipe, etc.), cement, lime, sand, gravel and stone.

26.—Values of Structural Materials Produced, by Provinces, 1942-51

NOTE.—Figures for the years 1926-41 are given at p. 355 of the 1946 Year Book.

Year	Newfoundland	Nova Scotia	New Brunswick	Quebec	Ontario
	\$	\$	\$	\$	\$
1942 ¹.....	...	1,980,912	1,305,343	17,723,293	16,557,804
1943.....	...	1,597,791	911,121	15,430,999	15,020,990
1944.....	...	1,081,805	1,637,409	14,597,540	15,716,361
1945.....	...	1,310,214	1,489,210	17,051,353	17,437,552
1946.....	...	1,671,504	1,817,401	22,615,910	24,293,081
1947.....	...	2,724,003	2,397,433	29,236,137	30,447,055
1948.....	...	3,419,820	2,456,778	39,415,625	35,208,061
1949.....	1,683,483	3,445,872	2,508,033	38,735,128	40,755,195
1950.....	1,619,068	3,370,622	7,597,036	42,586,473	49,701,917
1951P.....	1,616,282	3,602,271	4,950,491	48,641,066	57,000,816
	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	\$	\$	\$	\$	\$
1942 ¹	2,317,933	707,123	2,836,160	3,564,405	46,992,973
1943.....	2,288,339	932,412	2,661,834	3,166,768	42,010,254
1944.....	2,546,722	864,082	3,044,236	3,496,782	42,984,937
1945.....	3,212,917	834,564	3,305,941	3,777,922	48,419,673
1946.....	4,235,389	1,322,107	4,765,108	5,399,721	66,120,221
1947.....	4,772,908	1,632,625	4,726,752	8,639,872	84,576,785
1948.....	6,050,453	1,426,836	7,089,427	10,060,246	105,127,246
1949.....	5,791,820	2,341,354	6,963,395	11,678,799	113,903,079
1950.....	6,507,817	2,021,376	8,377,256	10,514,647	132,296,212
1951P.....	6,534,580	2,587,648	9,543,734	11,019,387	145,496,275

¹ Includes value of cement containers.

Clay Products.—The sales value of clay products in 1951 was the highest recorded, increasing over 1950 values in all provinces except Manitoba, Saskatchewan and Alberta. Common clays, suitable for the production of building bricks and tile are found in all the provinces; production is greatest in Ontario and Quebec. Stoneware clays are largely produced from the Eastend and Willows areas in Saskatchewan and shipped to Medicine Hat, Alta., where, utilizing the cheap gas fuel, they are manufactured into stoneware, sewer-pipe, pottery, tableware, etc. Stoneware clay also occurs in Nova Scotia some of which is used for pottery though it

has not been developed extensively for ceramic use. Two large plants and a few small plants manufacture fireclay refractories from domestic clay in British Columbia, Saskatchewan and Nova Scotia. Deposits of high-grade, plastic, white burning clays occur in northern Ontario and clay deposits yielding a high-grade of china clay have been found along the Fraser River in British Columbia but these have not been used on a commercial scale. Ball clays of high bond strength occur in the White Mud beds of southern Saskatchewan but have not been developed to any extent.

27.—Values (Total Sales) of Clay Products Produced, by Provinces, 1942-51

NOTE.—Figures for the years 1926-41 are given at p. 356 of the 1946 Year Book.

Year	Newfoundland	Nova Scotia	New Brunswick	Quebec	Ontario
	\$	\$	\$	\$	\$
1942.....	...	618,441	246,041	1,741,297	2,549,486
1943.....	...	478,571	216,446	1,504,428	2,453,829
1944.....	...	402,694	207,051	1,881,791	2,347,396
1945.....	...	433,455	232,783	2,534,630	3,107,189
1946.....	...	671,466	336,971	3,457,168	4,288,780
1947.....	...	752,126	381,184	4,257,423	5,289,528
1948.....	...	1,031,685	434,772	5,123,908	6,563,754
1949.....	25,450	1,053,845	515,767	5,580,421	7,435,439
1950.....	31,089	1,126,969	681,139	6,324,387	9,323,263
1951P.....	32,536	1,292,200	782,846	7,127,749	9,940,879
	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	\$	\$	\$	\$	\$
1942.....	80,890	271,325	1,013,497	560,746	7,081,723
1943.....	132,382	348,725	978,649	495,163	6,608,193
1944.....	197,383	330,907	1,143,577	486,626	6,997,425
1945.....	269,917	271,288	1,401,875	661,955	8,913,092
1946.....	372,920	411,446	1,808,971	859,645	12,207,367
1947.....	392,518	495,016	1,771,250	1,147,144	14,486,189
1948.....	517,181	509,593	2,055,738	1,392,417	17,629,048
1949.....	514,705	545,588	1,603,199	707,295	17,981,709
1950.....	690,730	581,506	1,950,309	1,081,496	21,790,888
1951P.....	669,160	573,000	1,949,265	1,222,747	23,590,382

Cement.—The production of cement has increased greatly since the end of World War II. The largest production is in Quebec and Ontario although there are active plants in Manitoba, Alberta and British Columbia. The imports of cement have also been relatively high during the same period. New plants are under construction at Havelock, N.B., and at Humbermouth, Nfld., which will increase the country's capacity by about 1,500,000 bbl. per year.

28.—Quantities and Values of Production (Sales), Imports and Exports and Apparent Consumption of Portland Cement, 1942-51

NOTE.—Figures for the years 1910-28 are given at p. 356 of the 1939 Year Book; and for 1929-41 at p. 356 of the 1946 edition.

Year	Production ¹		Imports		Exports		Apparent Consumption	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	bbl. ²	\$	bbl. ²	\$	bbl. ²	\$	bbl. ²	\$
1942.....	9,126,041	14,365,237	26,320	116,126	273,880	476,284	8,878,481	14,005,079
1943.....	7,302,289	11,599,033	18,577	83,975	172,601	344,004	7,148,265	11,339,004
1944.....	7,190,851	11,621,372	14,004	76,838	210,449	377,434	6,994,406	11,320,776
1945.....	8,471,679	14,246,480	32,653	141,539	281,944	535,012	8,222,388	13,853,007
1946.....	11,560,483	20,122,503	350,057	1,098,532	114,370	236,276	11,796,170	20,984,759
1947.....	11,936,245	21,968,909	1,248,625	3,843,652	88,030	198,354	13,096,840	25,614,207
1948.....	14,127,123	28,264,987	1,120,671	3,995,173	72,999	200,575	15,174,795	32,059,585
1949.....	15,916,564	32,901,936	2,284,001	6,877,939	19,212	51,733	18,181,353	39,728,142
1950.....	16,741,826	35,894,124	1,386,219	3,788,981	23,909	111,351	18,104,136	39,571,754
1951P.....	16,927,607	40,208,863	2,327,431	7,447,859	2,590	12,386	19,252,448	47,644,336

¹ 'Production' as used here means quantity and value of sales.

² The barrel of cement equals 350 lb.

Sand, Gravel and Stone.—Deposits of sand and gravel are numerous throughout Eastern Canada, with the exception of Prince Edward Island where gravels are scarce. The local needs for these materials are usually supplied from the nearest deposits as their cost to the consumer is governed largely by the length of the haul. This accounts for the large number of small pits and the small number of large plants. Every province, except New Brunswick and Prince Edward Island, produces natural bonded sand but some grades particularly suitable for certain industries demand a much higher price than ordinary sand. Quebec and Ontario contributed 76 p.c. of the total quantity of sand and gravel in 1951. The greater part of the output is used in road improvement, concrete works and railway ballast, and most of the commercial plants are equipped for producing crushed gravel, a product that can compete with crushed stone.

The stone industry has two main divisions, stone quarrying and the stone-products industry. The granite, limestone, marble, sandstone and slate quarries of Canada yield high-grade structural and decorative materials and also supply requirements for chemical and other allied industries. The gross value of stone of all varieties produced in Canada in 1950 totalled \$25,895,357 as compared with \$20,528,073 in 1949.

**29.—Quantities and Values of Sand, Sand and Gravel, and Stone Produced,
in 1949 and 1950, compared with 1946**

Material and Purpose	1946		1949		1950	
	Quantity	Gross Value	Quantity	Gross Value	Quantity	Gross Value
	tons	\$	tons	\$	tons	\$
Sand—						
Moulding sand.....	32,375	61,419	70,693	99,668	40,274	108,855
For building, concrete, roads, etc.....	3,421,830	1,681,572	6,931,874	3,556,130	6,850,339	4,151,672
Other.....	61,801	19,117	118,566	29,121	127,867	41,475
Sand and Gravel—						
For railway ballast.....	3,968,123	867,616	5,322,728	1,358,523	5,132,371	1,361,439
For concrete, roads, etc.....	26,640,116	10,530,718	42,086,698	19,758,109	49,768,234	24,512,834
For mine filling.....	2,024,029	426,063	2,157,346	530,185	3,385,384	800,988
Crushed gravel.....	3,801,720	1,943,195	6,668,403	5,849,805	7,790,694	5,457,496
Totals, Sand, Sand and Gravel....	39,949,994	15,529,700	63,356,308	31,181,541	73,095,163	36,434,759
Stone—						
Building.....	70,928	1,411,298	89,702	2,439,600	118,840	3,266,937
Monumental and ornamental.....	22,233	1,129,046	22,946	1,370,856	13,799	1,073,681
Limestone for agriculture.....	480,639	1,044,651	649,470	1,303,191	568,280	1,256,094
Chemical Uses—						
Flux.....	415,389	370,074	976,766	1,190,128	937,625	1,184,113
Pulp and paper.....	247,388	478,074	323,098	821,090	381,513	955,066
Other.....	208,371	215,917	82,691	157,071	75,081	145,198
Rubble and riprap.....	326,265	286,142	2,152,969	2,412,995	1,845,973	2,009,971
Crushed.....	6,073,451	5,340,831	9,438,685	9,649,872	13,944,649	14,713,321
Totals, Stone¹.....	8,056,260	11,185,711	13,928,038	20,528,073	18,087,064	25,895,357

¹ Totals include minor items not specified.

Section 5.—Industrial Statistics of the Mineral Industries

The scope of the annual statistics on mineral production published by the Dominion Bureau of Statistics includes a general review of the principal mineral industries, such as the copper-gold, silver-lead-zinc, and nickel-copper industries, as well as a section on metallurgical works. Additional data published at irregular intervals include such features as capital employed, numbers of employees, wages and salaries paid and net value of sales.

The figures for 'net value of shipments' of industries given in Tables 30 and 31 are, in each case, the settlements received for shipments by producers and the additional values obtained when the smelting of ores is completed in Canada, less the cost of materials, fuel, etc. The totals indicate more nearly the actual returns to the different industries than do the values for the minerals in Table 2 of this Chapter where, in the case of copper, lead, zinc and silver, the values are computed by applying the average prices for the year in the principal metal markets to the total production from mines and smelters with no reduction for fuel, electricity and other supplies consumed in the production process. Some imported ores and concentrates are treated in Canadian non-ferrous smelting and refining works, especially in the production of aluminum, where imported ore only is used, and of cobalt which comes mainly from African ores. The net sales of these plants include, therefore, the net value of the metals recovered from these imported ores and, to this extent, the net sales shown in Tables 30 and 31 include products of other than Canadian origin.

30.—Principal Statistics of the Mineral Industries, by Provinces, 1950

Province or Territory	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies ¹	Net Value of Shipments ²
	No.	No.	\$	\$	\$
Newfoundland.....	880	3,558	7,763,217	7,784,138	20,162,905
Nova Scotia.....	663	13,364	34,698,277	9,633,894	50,160,271
New Brunswick.....	435	1,804	3,631,388	1,247,322	11,567,032
Quebec.....	3,935	27,909	74,652,149	249,645,062	237,957,690
Ontario.....	6,719	39,549	114,370,430	199,588,152	298,002,994
Manitoba.....	168	2,776	8,569,746	22,220,350	23,499,082
Saskatchewan.....	524	2,729	8,605,454	25,582,035	29,834,220
Alberta.....	2,626	12,135	32,755,745	8,876,175	127,271,937
British Columbia.....	1,044	15,076	42,562,240	110,731,298	102,530,283
Northwest Territories.....	80	884	3,249,770	1,645,321	6,377,212
Yukon Territory.....	22	604	2,586,281	1,786,502	7,597,298
Canada.....	17,095³	120,388	333,444,697	638,740,249	914,960,924

¹ Includes freight and smelter charges and cost of ores treated.
less cost of process supplies, fuel, electricity, freight and smelter charges.
both Saskatchewan and Alberta, is counted as one in the total.

² Gross value of shipments
³ A plant, reported by

A summary of the industrial statistics of the principal mineral industries operating in Canada in the years 1946 to 1950 is presented in Table 31.

31.—Principal Statistics of the Mineral Industries, 1946-50

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies ¹	Net Value of Shipments ²
	No.	No.	\$	\$	\$
Metallics					
Alluvial gold.....1946	39	340	1,112,984	155,943	1,693,568
1947	46	458	1,684,449	238,079	1,635,086
1948	47	495	1,603,065	483,149	2,286,413
1949	56	398	1,509,423	579,533	2,920,290
1950	58	411	1,598,875	532,348	3,112,183
Auriferous quartz.....1946	686	21,973	47,211,062	22,080,531	66,342,152
1947	517	22,906	54,612,474	26,398,328	69,727,950
1948	282	22,566	59,515,678	28,277,570	80,386,512
1949	247	22,358	61,293,334	32,970,157	96,580,304
1950	281	22,491	64,533,114	35,204,245	108,840,362
Copper-gold-silver.....1946	43	4,958	10,243,487	16,870,567	37,433,982
1947	32	5,220	13,149,093	18,125,109	52,173,584
1948	37	6,401	17,919,526	22,178,942	85,652,206
1949	33	7,395	21,776,150	31,402,838	74,591,660
1950	56	7,554	23,489,366	38,671,894	83,181,924
Silver-cobalt.....1946	11	247	404,012	118,363	207,483
1947	12	183	359,963	90,374	253,563
1948	17	172	413,095	177,653	321,415
1949	18	264	607,782	319,309	503,572
1950	20	364	883,281	631,933	2,308,213
Silver-lead-zinc.....1946	31	2,451	5,987,111	9,079,895	39,262,606
1947	62	3,240	8,304,915	18,262,337	59,862,251
1948	84	4,040	11,421,086	22,923,228	85,993,977
1949	111	5,438	15,676,043	33,241,764	67,108,165
1950	112	5,939	17,632,755	36,872,621	85,845,870
Nickel-copper.....1946	9	4,439	10,166,680	5,332,956	34,960,264
1947	24	6,144	15,685,963	8,284,711	46,211,129
1948	15	6,920	20,492,920	5,976,740	50,976,280
1949	11	7,053	22,517,855	6,981,288	45,963,772
1950	10	7,713	25,313,838	7,914,476	46,028,054
Miscellaneous metals.....1946	21	1,037	2,338,442	3,479,336	3,708,109
1947	19	1,183	2,970,903	4,472,117	5,710,222
1948	26	1,296	3,878,527	4,100,667	4,624,994
1949	21	3,275	8,894,642	5,776,330	15,689,997
1950	16	3,225	8,578,969	8,538,649	15,108,311
Smelting and refining.....1946	15	14,546	30,648,361	235,152,602	69,565,922
1947	16	17,449	40,767,871	337,235,290	115,798,652
1948	16	19,701	52,276,837	429,553,076	146,830,891
1949	16	19,150	55,133,065	417,280,288	181,907,847
1950	17	19,863	58,748,362	447,171,025	202,711,781
Totals, Metallics.....1946	855	49,991	108,112,139	292,270,193	253,174,086
1947	728	56,783	137,535,631	413,106,345	351,372,437
1948	524	61,591	167,520,734	513,671,025	457,072,688
1949	513	65,331	187,408,294	528,551,507	485,265,607
1950	570	67,560	200,778,560	575,537,191	547,636,698
Non-Metallics (Excluding Fuels)					
Asbestos.....1946	12	4,547	7,771,921	4,975,892	20,269,687
1947	12	4,885	9,165,450	6,824,465	26,191,500
1948	15	4,959	12,136,615	7,856,902	34,421,819
1949	17	4,053	10,569,071	6,168,308	33,616,343
1950	19	5,552	15,848,829	10,267,587	55,640,809

For footnotes, see end of table, p. 536.

31.—Principal Statistics of the Mineral Industries, 1946-50—continued

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies ¹	Net Value of Shipments ²
	No.	No.	\$	\$	\$
Non-Metallics (Excluding Fuels) —concluded					
Feldspar, quartz and nepheline syenite.....					
1946	36	517	876,034	440,701	1,727,972
1947	39	593	1,134,107	719,986	1,921,871
1948	36	562	1,184,257	666,906	2,598,159
1949	31	442	946,268	465,253	2,184,782
1950	36	476	1,056,129	467,968	2,553,587
Gypsum.....					
1946	14	753	1,246,673	806,571	2,890,156
1947	13	908	1,695,711	1,049,297	3,733,132
1948	14	995	2,272,358	1,871,868	3,771,013
1949	14	925	2,226,703	1,481,874	3,943,171
1950	13	1,004	2,412,698	1,775,427	4,935,137
Iron oxides.....					
1946	5	60	77,727	36,017	116,251
1947	6	54	82,369	40,904	217,416
1948	7	55	84,559	38,265	165,126
1949	8	44	73,111	40,406	167,481
1950	6	44	70,404	37,360	225,272
Mica.....					
1946	27	129	153,616	38,086	160,953
1947	38	118	147,351	28,595	172,308
1948	34	109	118,982	32,850	187,098
1949	34	96	115,667	20,516	87,942
1950	26	100	136,727	47,388	205,223
Peat (moss and fuel).....					
1946	41	1,391	1,562,689	671,161	2,249,651
1947	42	1,224	1,602,265	672,144	2,136,495
1948	41	1,032	1,532,977	810,071	2,597,754
1949	43	1,129	1,510,105	700,260	2,287,072
1950	39	1,118	1,530,866	767,110	2,101,092
Salt.....					
1946	9	713	918,566	1,590,416	2,890,423
1947	10	700	1,399,693	1,872,839	3,493,193
1948	11	673	1,367,353	2,062,682	3,765,785
1949	12	698	1,565,210	1,904,760	4,716,723
1950	13	643	1,521,593	2,180,610	5,919,503
Talc and soapstone.....					
1946	5	87	117,551	63,568	240,116
1947	5	73	110,527	41,690	224,687
1948	5	58	102,087	29,250	280,573
1949	3	59	105,736	64,252	256,541
1950	6	58	116,547	66,775	297,860
Miscellaneous ³					
1946	43	911	1,582,846	1,389,098	2,859,009
1947	42	1,038	2,004,489	1,651,544	3,479,428
1948	40	1,161	2,497,918	1,977,985	4,056,367
1949	37	1,160	2,632,808	1,774,881	4,461,930
1950	42	1,121	2,640,013	1,888,255	4,821,324
Totals, Non-Metallics.....					
1946	192	9,108	14,307,623	10,011,510	33,404,218
1947	207	9,593	17,341,962	12,901,464	41,570,032
1948	203	9,604	21,297,106	15,346,779	51,843,694
1949	199	8,606	19,744,679	12,620,510	51,721,985
1950	200	10,116	25,333,806	17,498,480	76,699,807
Fuels					
Coal.....					
1946	365	25,487	51,343,975	12,637,105	59,607,029
1947	350	22,227	46,312,295	11,701,500	61,617,921
1948	351	24,319	58,503,607	16,226,321	85,624,145
1949	328	24,230	61,204,632	15,496,981	95,418,140
1950	363	23,418	60,938,980	14,464,916	95,675,483
Natural gas.....					
1946	3,825	1,655	2,491,361	248,437	10,339,738
1947	3,799	1,784	3,057,249	240,319	12,093,013
1948	3,833	1,831	2,918,941	67,065	14,622,672
1949	3,927	2,223	4,713,266	63,512	17,519,000
1950	3,991	2,613	5,703,524	186,180	6,258,035

For footnotes, see end of table, p. 536.

31.—Principal Statistics of the Mineral Industries, 1946-50—concluded

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies ¹	Net Value of Shipments ²
	No.	No.	\$	\$	\$
Fuels—concluded					
Petroleum.....1946	2,314	1,563	3,260,571	1,024,106	13,701,033
1947	2,296	1,296	3,055,108	876,592	18,666,709
1948	2,581	1,641	4,391,929	2,052,808	35,336,167
1949	3,166	2,142	6,304,601	985,707	60,105,421
1950	3,849	2,417	7,848,539	1,714,101	82,881,844
Totals, Fuels.....1946	6,504	28,705	57,095,907	13,909,648	83,647,800
1947	6,445	25,307	52,424,652	12,618,411	92,377,643
1948	6,765	27,791	65,814,477	18,346,194	135,582,984
1949	7,421	28,595	72,222,499	16,546,200	173,042,561
1950	8,203	28,453	74,491,043	16,365,197	184,815,362
Structural Materials					
Clay products.....1946	119	3,437	5,115,962	2,643,677	9,563,690
1947	124	3,552	6,204,705	3,219,256	11,266,933
1948	117	3,746	7,505,765	4,026,603	13,602,445
1949	124	3,603	7,924,841	3,904,967	14,076,742
1950	134	3,663	8,583,912	4,655,254	17,135,634
Cement.....1946	8	1,524	2,929,020	8,793,963	12,930,058
1947	8	1,650	3,679,446	10,132,574	13,449,437
1948	8	1,723	4,356,086	12,857,198	17,704,519
1949	8	1,721	4,754,611	13,987,830	21,077,322
1950	8	1,781	5,235,735	15,109,409	23,091,104
Lime.....1946	41	918	1,616,839	2,412,041	4,910,127
1947	42	1,038	2,052,801	3,086,779	5,763,244
1948	42	1,121	2,459,299	3,790,233	7,284,638
1949	42	1,060	2,485,601	3,572,730	8,223,272
1950	43	1,133	2,760,960	4,052,688	8,774,233
Sand and gravel.....1946	5,252	2,793	3,600,797	579,489	14,950,211
1947	5,458	3,430	4,941,148	813,027	22,301,404
1948	6,102	4,197	7,057,193	1,101,024	29,528,572
1949	6,952	3,863	7,491,081	1,500,164	29,681,377
1950	7,348	4,120	8,712,440	1,907,445	34,527,314
Stone.....1946	486	2,720	3,970,404	1,691,598	9,494,113
1947	483	3,166	5,380,259	2,255,930	14,208,819
1948	554	3,082	5,990,922	2,617,663	15,330,890
1949	549	3,728	7,615,572	3,399,603	17,128,470
1950	589	3,562	7,548,241	3,614,585	22,280,772
Totals, Structural Materials.....1946	5,906	11,392	17,233,022	16,120,768	51,848,199
1947	6,115	12,836	22,258,359	19,507,566	66,989,837
1948	6,823	13,869	27,369,265	24,392,721	83,451,064
1949	7,675	13,975	30,271,706	26,365,294	90,187,183
1950	8,122	14,259	32,841,288	29,339,351	105,809,057
Grand Totals.....1946	13,457	99,196	196,748,691	332,312,119	422,974,303
1947	13,495	104,519	229,560,604	459,333,786	552,309,949
1948	14,315	112,855	282,001,582	571,756,719	727,950,430
1949	15,808	116,507	309,647,178	584,083,511	800,217,336
1950	17,095	120,388	333,444,697	638,740,249	914,960,924

¹ Includes freight and smelter charges and cost of ores treated.
cost of process supplies, fuel, electricity, freight and smelter charges.² Gross value of shipments less
³ Includes natural abrasives.

CHAPTER XIII.—POWER GENERATION AND UTILIZATION

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Water-Power Resources and Their Development*

Canada, a land of many lakes and rivers, has been abundantly endowed by nature with great water-power resources which are well distributed across the country. In most sections, adequate precipitation and favourable topography result in numerous rivers on which falls and rapids frequently occur and offer excellent opportunities for the development of hydraulic power; with the exception of the prairies of the middle west, water-power resources of importance are found in virtually every part of the country. In British Columbia, where precipitation is high, the rivers flowing down the Pacific slope of the Rocky Mountains offer many fine power sites. Alberta, although a prairie province, also has mountain streams from the Rockies as well as great reserves of undeveloped power on its large northern rivers. The great Canadian Shield of Precambrian rock, which forms an arc around Hudson Bay, covers a portion of the Northwest Territories and northern Saskatchewan as well as a large part of Manitoba, Ontario, Quebec and Labrador; it is a rough, forest-covered, well-watered area characterized by innumerable lakes and by rivers with many falls and rapids. The potential power of the Great Lakes-St. Lawrence River System forms part of the great resources of Ontario and Quebec upon which their status as the principal manufacturing provinces of Canada is dependent and which compensates in large degree for the lack of indigenous coal. In New Brunswick, Nova Scotia and on the Island of Newfoundland, the precipitation is moderately heavy and the rivers, while not large, afford numerous possibilities for power developments of moderate size. In Labrador, the potential resources of the Hamilton River are outstanding.

An accurate comparison of Canada's water-power resources and their development with those of other countries† is not possible owing to incomplete world statistics and differing bases of tabulation. However, from available figures as of the end of 1950, it appears that Canada ranks second among the countries of the

* Revised under the direction of Major-General H. A. Young, Deputy Minister, Department of Resources and Development, by Norman Marr, Chief, Water Resources Division.

† More detailed information on the water-power resources of other countries is given in the Year Book 1951, pp. 531-533.

world in total installed capacity, being exceeded only by the United States; in installation per thousand population, Canada is exceeded only by Norway. Canada is in approximately sixth place in potential power resources but those resources are, on the whole, more readily available to prospective markets than is the case in other countries that outrank Canada, an exception being the United States. In particular might be mentioned the enormous potential resources of the great river systems of Africa and Asia.

Subsection 1.—Available and Developed Water Powers in Canada

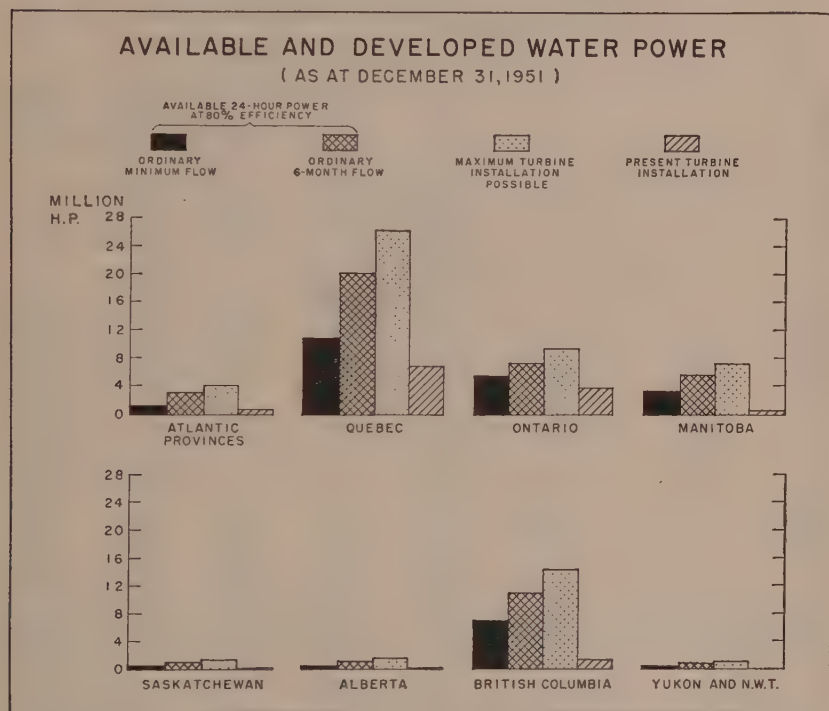
Table 1 gives a summary of the water-power resources of Canada and their development as at Dec. 31, 1951.

1.—Available and Developed Water Power, by Provinces, as at Dec. 31, 1951

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency		Turbine Installation
	At Ordinary Minimum Flow	At Ordinary Six-Months Flow	
	h.p.	h.p.	h.p.
Newfoundland.....	1,135,000	2,585,000	279,160
Prince Edward Island.....	500	3,000	2,299
Nova Scotia.....	25,500	156,000	150,960
New Brunswick.....	123,000	334,000	132,911
Quebec.....	10,898,000	20,219,000	6,755,351
Ontario.....	5,407,000	7,261,000	3,718,505
Manitoba.....	3,333,000	5,562,000	596,400
Saskatchewan.....	550,000	1,120,000	111,835
Alberta.....	508,000	1,258,000	207,825
British Columbia.....	7,023,000	10,998,000	1,358,808
Yukon and Northwest Territories.....	382,500	814,000	28,450
Canada.....	29,385,500	50,310,000	13,342,504

The figures given in the first and second columns of the above table represent 24-hour power and are based upon rapids, falls and power sites of which the actual drop, or the head of possible concentration, has been measured or at least carefully estimated. Under a 1951 revision following a review of stream-flow records, the estimates of potential power, particularly in the Province of Quebec, were appreciably increased, principally as a result of the use of higher run-off factors in computing or estimating available flows. The increase was also influenced by changed flow conditions on controlled rivers and to higher heads at new developments. However, tabulations of potential power in Canada are still not complete as many unrecorded rapids and falls of undertermined power capacity exist on rivers and streams throughout the country, particularly in the less-explored northern districts. Apart from cases where definite studies have been carried out and the results recorded, no consideration has been given to the power concentrations that are feasible on rivers and streams of gradual gradient, where economic heads possibly may be created by the construction of dams. Thus the figures in Table 1 of available power, under the two conditions of stream flow, represent only the *minimum* water-power possibilities of Canada.

The third column gives the total capacity of the water wheels actually installed. These figures should not be placed in direct comparison with those in the first and second columns to deduce the percentage of the available water-power resources that has been developed. At developed sites, the water-wheel installation averages 30 p.c. greater than the corresponding calculated maximum available power at the same sites. The figures of Table 1, therefore, indicate that the *at present recorded* water-power resources will permit of a turbine installation of more than 65,000,000 h.p., and that the turbine installation at Dec. 31, 1951, represents approximately only 20 p.c. of recorded water-power resources.



The development from year to year of Canada's water-power resources is a good index of the country's industrial growth and of the change in its economic life since the beginning of the present century. In 1900, prior to the inception of long-distance transmission of electricity, Canada's economy was based largely on agriculture and the total of hydraulic installations, mostly small mills, was only 173,000 h.p. With the successful solution of the problems of transmission of electric energy for use in distant communities, the development of large hydraulic projects became practicable and, by 1910, total installation had risen to 977,000 h.p. In ensuing decades, the growth in installed capacity, partly speeded by war demands, proceeded at an accelerated rate.

Table 2 shows clearly the consistent growth in capacity since the beginning of the century as well as the heavy increases in installation during the war years 1942 and 1943 and during the later post-war years 1948 to 1951. In 1951 more than 780,000 h.p. was added to the total capacity of the country and at the end of the year many new plants and additions were under construction.

2.—Hydraulic Turbine Horse-Power Installed, by Provinces, as at Dec. 31, 1900-51

NOTE.—Figures for each year 1900-30 are given at p. 361 of the 1939 Year Book; for 1931-39 at p. 362 the 1946 edition.

Year	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1900.....	...	1,521	19,810	4,601	82,864	53,876
1910.....	...	1,760	31,476	11,197	334,763	490,821
1920.....	...	2,233	37,623	21,976	955,090	1,057,422
1930.....	...	2,439	114,224	133,681	2,718,130	2,083,055
1940.....	...	2,617	139,217	133,347	4,320,943	2,597,595
1941.....	...	2,617	139,217	133,347	4,556,943	2,617,495
1942.....	...	2,617	143,717	133,347	4,839,543	2,684,395
1943.....	...	2,617	133,384	133,347	5,847,322	2,673,443
1944.....	...	2,617	133,384	133,347	5,848,572	2,673,443
1945.....	...	2,617	133,384	133,347	5,848,572	2,673,290
1946.....	...	2,617	133,384	133,347	5,848,572	2,679,740
1947.....	...	2,617	133,384	133,347	5,878,872	2,749,740
1948.....	...	2,617	140,884	133,347	5,939,697	2,894,240
1949.....	262,050	2,617	145,384	133,347	6,130,097	2,896,540
1950.....	262,810	2,299	150,960	133,111	6,372,812	3,513,840
1951.....	279,160	2,299	150,960	132,911	6,755,351	3,718,505

	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.	Canada
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1900.....	1,000	—	280	9,366	5	173,323
1910.....	38,800	30	655	64,474	3,195	977,171
1920.....	85,325	35	33,122	309,534	13,199	2,515,559
1930.....	311,925	42,035	70,532	630,792	13,199	6,125,012
1940.....	420,925	90,835	71,997	788,763	18,199	8,584,438
1941.....	420,925	90,835	71,997	788,763	22,899	8,845,038
1942.....	420,925	90,835	94,997	792,563	22,899	9,225,838
1943.....	422,825	90,835	94,997	796,024	19,719	10,214,513
1944.....	422,825	90,835	94,997	864,024	19,719	10,283,763
1945.....	422,825	90,835	94,997	864,024	19,719	10,283,610
1946.....	446,825	90,835	93,060	864,024	19,719	10,312,123
1947.....	458,825	90,835	106,560	917,024	19,719	10,490,923
1948.....	503,700	111,835	106,560	1,009,769	28,069	10,870,718
1949.....	557,700	111,835	107,225	1,238,069	28,469	11,613,333
1950.....	595,200	111,835	107,225	1,284,208	28,469	12,562,750
1951.....	596,400	111,835	207,825	1,358,808	28,469	13,342,504

The availability of large amounts of hydro-electric energy has so fostered the economic utilization of the natural products from land, forest and mine that Canada has become a highly industrialized nation. Low-cost power is fundamental in meeting the enormous requirements of the pulp and paper industry—Canada's largest industry and one of the world's great industrial enterprises; it also allows the economic mining, milling and refining of base and precious metals and facilitates their fabrication into a multitude of manufactured articles. Canada's outstanding

growth in the post-war period has been made in conjunction with accelerated development of water-power resources. From hydro-electric plants ranging in capacity from a few hundred to more than 1,000,000 h.p., networks of transmission line carry power to most urban centres and to an increasing number of rural districts. This wide distribution of power has facilitated the decentralization of industry, enabling manufacturing processes to be carried on in many of the smaller centres of population. Economical domestic service, too, contributes in no small measure to the high standard of living enjoyed in Canada.

With a total capacity of 13,342,504 h.p., present water-power plants in Canada, if operated at full load, would produce energy at the rate corresponding to the output of more than 133,000,000 manual workers, on the commonly accepted basis of one mechanical horse-power equalling the working capacity of ten men.

Table 3 shows under three classifications, the purposes for which the developed water power is primarily utilized.

3.—Developed Water Power, by Provinces and Industries, as at Dec. 31, 1951

Province or Territory	Turbine Installation			Total ⁴
	In Central Electric Stations ¹	In Pulp and Paper Mills ²	In Other Industries ³	
	h.p.	h.p.	h.p.	h.p.
Newfoundland.....	50,950	224,900	3,310	279,160
Prince Edward Island.....	707	—	1,592	2,299
Nova Scotia.....	135,282	10,270	5,408	150,960
New Brunswick.....	104,060	22,060	6,791	132,911
Quebec.....	6,420,152	248,610	86,589	6,755,351
Ontario.....	3,410,247	225,937	82,321	3,718,505
Manitoba.....	594,500	—	1,900	596,400
Saskatchewan.....	108,500	—	3,335	111,835
Alberta.....	205,765	—	2,060	207,825
British Columbia.....	836,801	134,400	387,607	1,358,808
Yukon and Northwest Territories.....	8,750	—	19,700	28,450
Canada.....	11,875,714	866,177	600,613	13,342,504
Percentages of total installation.....	89.0	6.5	4.5	100.0

¹ Includes only hydro-electric stations that develop power for sale.
actually developed by pulp and paper companies.

² Includes only water power *actually developed* by industries other than central electric stations and the pulp and paper industries.

³ Includes only water power *actually developed* by industries other than central electric stations and the pulp and paper industries.

⁴ All water wheels and hydraulic turbines installed in Canada.

The central electric station classification totalling 11,875,714 h.p. represents 89 p.c. of the total developed water power as at Dec. 31, 1951. In 1900 the corresponding percentage was 33.5, thus showing the tremendous growth in central electric station installations since the inception of successful long-distance transmission of electricity. Central hydro-electric stations produced nearly 97 p.c. of all electricity sold in or exported from Canada during 1951.

The pulp and paper turbine installation total of 866,177 h.p. includes only water power *actually developed* and directly used by pulp and paper companies. In addition, this industry is the greatest purchaser of central electric station power, buying more than 17 p.c. of all power sold for industrial purposes. Part of the purchased power is classed as secondary, being used for steam generation by electric boilers.

The 'other industries' group develops 600,613 h.p. solely for its own use. These diversified industries also provide a broad market for the power sold by the central electric stations.

The figure of total hydraulic installation in Canada, 13,342,504 h.p., is the cumulative total of all existing installations of water wheels and hydraulic turbines, irrespective of whether or not the equipment has been in use during the year. It has been adjusted to Dec. 31, 1951, by the inclusion of new installations completed during the year and by deletion of those old units which were dismantled. The somewhat similar figures reported by the annual Census of Industry are compiled on a different basis and represent only the sum of the units actually in operation during the year in those plants from which reports were received.

Subsection 2.—Water-Power Developments in 1950 and 1951, by Provinces and Territories

Construction of power plants proceeded vigorously during 1950 and 1951, keeping pace with the expansion of general industrial activity throughout Canada and the consequent increasing demand for electric power. Following the usual trend, the larger part of this construction was concerned with water-power plants, although the building of thermal plants also was active. In the two years, a total of 1,843,525 h.p. of *new* hydro-electric capacity was brought into operation and, at the end of the period, about 1,700,000 h.p. was under active construction for operation in 1952-53. Approximately the same amount was in the preliminary stages of construction, with operation planned for 1954-55. One striking feature of the present program of development is the number of new projects that are being undertaken in rather remote regions, with the power to be used locally; this fact tends to accentuate the potential value of those undeveloped sites which at present may appear to be so remotely located as to be of little economic importance. The progress of water power developments in each province is outlined below.

Atlantic Provinces.*—During 1950, the Nova Scotia Power Commission completed a development of 12,800 h.p. in two units on the Mersey River at Deep Brook. In 1951, the Commission had under construction, for operation in 1952, a plant of 8,600 h.p. on the Bear River. The Nova Scotia Light and Power Company brought into operation its new Paradise Brook development of 5,000 h.p. and had under construction a new plant of 4,000 h.p. on the Gaspereau River at White Rock. The New Brunswick Electric Power Commission has under construction, for 1953 operation, a development of 27,000 h.p. in two units on the Tobique River. The Newfoundland Light and Power Company in 1951 completed its new plant of 13,000 h.p. on the Mobile River and also a new unit of 3,350 h.p. in its Tors Cove plant; the Company also has under construction a plant of 7,500 h.p. at Cape

* In addition to water-power development, the construction of fuel-electric plants included: Nova Scotia Power Commission enlargement at Cantleys Point by 10,000 kw., with a further addition of 10,000 kw. under construction; Nova Scotia Light and Power Company Limited, 26,000 kw. at Halifax, and a second unit on order; Seaboard Power Corporation Limited, 18,750 kw. at Glace Bay, N.S., and a similar unit on order; New Brunswick Electric Power Commission, 6,250 kw. at Grand Lake, and a similar unit under installation; Maritime Electric Company at Charlottetown, P.E.I., 7,500 kw.; Newfoundland Light and Power Company, a 3,580-h.p. diesel-electric unit on Bell Island.

Broyle for 1952 operation and one of the same capacity on the Horse Chops River for 1953. The Anglo-Newfoundland Development Company Limited is undertaking the modernization of its Grand Falls and Bishop Falls plants on the Exploits River and will increase the capacity of each by 6,000 h.p. In Labrador, the Iron Ore Company began preliminary construction on a development of 12,000 horsepower on the Ashuanipi River for 1954 operation to serve Burnt Creek and Knob Lake.

Quebec.—In Quebec, a total of 703,500 h.p. of *new* hydro-electric capacity was brought into operation during 1950 and 1951. The largest single addition was that of 333,000 h.p. in six units in the Beauharnois No. 2 power-house of the Quebec Hydro-Electric Commission on the St. Lawrence River; ultimate capacity, which may be reached in 1953, is 666,000 h.p. The Commission also has under construction, for 1953 operation, a development of 16,000 h.p. at Rapid II on the upper Ottawa River. The Shawinigan Water and Power Company completed its 325,000-h.p. La Trenché plant on the St. Maurice River; two of its 65,000 h.p. units were brought into operation in 1950 and the other three in 1951. Work has begun towards raising the firm output of the plants on the St. Maurice River by about 30,000 h.p. by diverting water from the head-waters of the Megiscane and Susie Rivers into the St. Maurice basin. In 1951, the Northern Quebec Power Company completed the installation of a new unit of 35,000 h.p. in its Quinze plant on the upper Ottawa River, bringing capacity to 85,000 h.p. The Pembroke Electric Light Company Limited, in 1951, added two units each of 3,000 h.p. to its plant on the Black River at Waltham and the Cie Electrique de Mont Laurier, two units each of 1,350 h.p. to its plant on the Lièvre River. Early in 1950, the city of Rivière-du-Loup replaced a 500-h.p. unit with one of 1,800 h.p. The Aluminum Company of Canada has under construction two developments on the Peribonka River, one at Chute-du-Diable and one at Chute-à-la-Savanne, each of 275,000 h.p. in five units under 110-foot head; initial operation is scheduled for May and September 1952, respectively, and completion of both plants is expected in 1953. Price Brothers and Company Limited began construction in June 1951 of two plants on the Shipshaw River; the main development at Chute-des-Georges will be of 70,000 h.p., in two units under 348-foot head, while the second plant, located below Lake Brocket, will contain one 9,000-h.p. unit under 47-foot head; operation is planned for 1953 and the output will be used in the Company's paper mills. The Manicouagan Power Company began construction in 1951 of a development near the mouth of the Manicouagan River to comprise initially two units, each of 50,000 h.p., for operation in 1953 but with provision for an ultimate installation of 300,000 h.p. The Ste. Marguerite Power Company begun construction of a development of 17,000 h.p. in two units on the Ste. Marguerite River for 1954 operation, principally to serve the Iron Ore Company at Seven Islands. While not increasing their generating capacity, the Gatineau Power Company and the Southern Canada Power Company carried out extensive additions to their transmission and distribution systems. The Quebec Streams Commission carried out storage and power studies on a number of rivers; its storage dam operations were continued with good results in stream regulation on controlled rivers.

Ontario.*—As a result of the particularly heavy increase in power demand in southern Ontario, the large current construction program of the Hydro-Electric Power Commission of Ontario was vigorously expedited. The Des Joachims and Chenaux developments on the Ottawa River were completed in 1951, the final and eighth unit of 62,000 h.p. being added at the 496,000-h.p. Des Joachims plant and the remaining six units each of 21,000 h.p. at Chenaux, bringing total capacity to 168,000 h.p. At the La Cave development, also on the Ottawa River and now designated "Otto Holden Generating Station", initial operation commenced in June 1952 and completion of the plant of eight units totalling 272,000 h.p. scheduled for December. On the Nipigon River, the Pine Portage development of 82,000 h.p. in two units was completed in 1950, with provision for an ultimate capacity of 164,000 h.p. The development of the "Tunnel" site on the Mississagi River near Thessalon, 58,000 h.p. in two units, was also completed in 1950; this plant has been designated the "George W. Rayner Generating Station". On the Niagara River at Queenston, preliminary construction was actively begun in 1951 for the Sir Adam Beck-Niagara Generating Station No. 2 which will contain seven units totalling 735,000 h.p. with initial operation scheduled for 1954. The water from the upper river will be conveyed by a tunnel 45 feet in diameter with a length of 28,600 feet and by a canal 200 ft. wide and 11,800 feet long. Excavation for the power-house, for the canal, and for the access shafts to the tunnel were well advanced at the end of 1951.

In addition to the activities of the Hydro-Electric Power Commission of Ontario, the town of Orillia completed its development of 3,750 h.p. on the south branch of the Muskoka River near Mathiasville. The Great Lakes Power Company brought into operation a new unit of 13,200 h.p. in its High Falls plant on the Michipicoten River and had under construction for operation in 1952 a new plant of 15,000 h.p. to be located at Scott Falls, a short distance downstream from the present station. The Abitibi Power and Paper Company had under way for some time a modernization program in its Iroquois Falls plant on the Abitibi River which resulted in an increase in capacity of 4,350 h.p.; the plant is now rated at 32,350 h.p.

Prairie Provinces.†—The Manitoba Hydro-Electric Board made good progress on its Pine Falls development on the lower Winnipeg River—two units, each of 19,000 h.p., were brought into operation in December 1951 and the plant of 114,000 h.p. was scheduled for completion in 1952. The Winnipeg Electric Company brought into operation, in August 1950, the fifth unit of 37,500 h.p. in its Seven Sisters plant and had under installation, for operation in 1952, the sixth and final unit; to allow efficient operation of this plant, the Pinawa channel was being closed

* To supplement its power output from hydro-electric plants, the Hydro-Electric Power Commission of Ontario is constructing steam-electric plants at Windsor and Toronto with capacities of 264,000 kw. and 400,000 kw., respectively. At Windsor, the first unit of 66,000 kw. was brought into operation in November 1951, the second and third will follow in 1952 and the plant will be completed in 1953. At Toronto one 25-cycle 88,000-kw. unit and one 60-cycle 100,000-kw. unit were completed in 1951 and similar units were scheduled for operation by early 1953; ultimately the 25-cycle units will be converted to 60-cycle operation at 100,000-kw. capacity.

† The Saskatchewan Power Corporation completed the installation of a new steam turbo-generator of 15,000 kw. in its Estevan plant and was enlarging its Prince Albert plant by 10,000 kw. and its Saskatoon plant by 25,000 kw., for operation in 1952. The City of Winnipeg is building an auxiliary steam plant with one unit of 15,000 kw. to be installed in 1952 and an additional 25,000 kw. in 1953.



THE
HYDRO-ELECTRIC POWER COMMISSION OF ONTARIO
1951

LEGEND

MAIN SOURCES OF ELECTRIC POWER

ROUTES OF MAIN POWER FLOWS

HYDRO-ELECTRIC PLANTS UNDER CONSTRUCTION

UTILIZATION CENTRES ● ● STEAM PLANTS

TRANSMISSION LINES (under construction and projected)





and the Company's Pinawa plant of 37,800 h.p. dismantled. Sherritt-Gordon Mines Limited was proceeding with the development of 7,000 h.p. on the Laurie River to serve the Lynn Lake area and operation of the two-unit plant was scheduled for the summer of 1952. During 1950 and 1951, the Manitoba Power Commission extended service to about 10,000 farms and to an additional 70 rural communities.

No new developments were made in Saskatchewan but, in Alberta, installed capacity of water-power plants was practically doubled in 1951 with the completion by Calgary Power Limited of the Spray Lakes storage and diversion scheme which involved three new plants: Three Sisters, 3,600 h.p.; Spray, 62,000 h.p.; and Rundle, 23,000 h.p. A new unit of 12,000 h.p. was also installed in the Kananaskis plant on the Bow River, as flow conditions were improved by Spray storage.

British Columbia.—The British Columbia Power Commission brought into operation a new development of 33,000 h.p. in two units under 710-foot head on the Whatshan River, provision being made for an ultimate capacity of 66,000 h.p. The Commission has under construction for operation in 1952 a plant of 4,000 h.p. on the Clowhom River, is extending its John Hart plant on the Campbell River for 1953 operation by two units, each of 28,000 h.p., and is planning a development on the Quesnel River. The British Columbia Electric Company Limited completed the installation of a third unit of 47,000 h.p. in its Ruskin plant and remodelled its Lake Buntzen No. 1 plant by replacing its seven old units with one new unit of 70,000 h.p., an increase of 41,800 h.p. The Company has under construction for operation in 1952 a new development of 82,000 h.p. in one unit under 2,000-foot head on Wahleach Lake, about 15 miles east of Chilliwack; it is also adding a fourth unit of 62,000 h.p. in its Bridge River plant for 1953 operation and is undertaking the modernization of its Jordan River plant, with an increase in capacity of about 4,000 h.p. The Aluminum Company of Canada in 1951 began preliminary construction on its Nechako-Kitimat development which involves the diversion of the head-waters of the Fraser River by tunnel through the coastal range; present plans call for an installation of 420,000 h.p. by 1954, with provision being made for a total installation of about 1,000,000 h.p. The Consolidated Mining and Smelting Company of Canada Limited has commenced construction of a development of 205,000 h.p. in two units under 210-foot head on the Pend d'Oreille River, near its junction with the Columbia River; operation is scheduled for early 1954. The following smaller developments were completed: Mastodon Zinc Mines Limited, 1,000 h.p. on La Forme Creek near Revelstoke; Western Uranium-Cobalt Mines Limited, 800 h.p. on Juniper Creek near Skeena Crossing; Ashcroft Water and Electric Company, 325 h.p. on Bonaparte River; Gilley Brothers Limited, replacement of an old 500-h.p. water wheel by a 550-h.p. hydro-electric unit.

Yukon Territory.—In Yukon, the Northwest Territories Power Commission is constructing, for 1952 operation, a development of 3,000 h.p. on the Mayo River to serve the mines in the Keno Hill and Galena Hill areas.

Section 2.—The Central Electric Station Industry

Central electric stations are companies, municipalities or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. Stations are divided into two classes according to ownership, viz., (1) commercial—those privately owned and operated by companies or individuals, and

(2) municipal—those owned and operated by municipalities or provincial governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel, and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 87 p.c. of the total capacity of hydro installations in all industries in Canada. The generators driven by this hydraulic equipment generate 97 p.c. of the total output of all central electric stations.

4.—Electric Energy Generated, by Type of Station, 1941-50, and by Provinces, 1949 and 1950

Year and Province	Generated by—		Total	Year, Province or Territory	Generated by—		Total
	Water Power	Thermal Engines			Water Power	Thermal Engines	
	'000 kwh.	'000 kwh.	'000 kwh.		'000 kwh.	'000 kwh.	'000 kwh.
1941.....	32,628,930	688,733	33,317,663	1949—Conc.			
1942.....	36,582,953	772,226	37,355,179	B.C.....	1,959,124	146,062	2,105,186
1943.....	39,660,312	819,281	40,479,593	Yukon and			
1944.....	39,553,352	1,045,427	40,598,779	N.W.T....	43,730	1,226	44,956
1945.....	39,131,020	999,034	40,130,054	Canada,			
1946.....	40,692,395	1,044,592	41,736,987	1949.....	42,779,199	1,639,374	44,418,573
1947.....	42,273,167	1,151,632	43,424,799	1950			
1948.....	41,070,095	1,319,586	42,389,681	Nfld.....	146,461	1,009	147,470
1949.....	42,779,199	1,639,374	44,418,573	P.E.I.....	371	28,679	29,050
1950.....	46,624,218	1,869,500	48,493,718	N.S.....	378,006	384,333	762,339
1949				N.B.....	480,431	216,088	696,519
Nfld.....	199,874	736	200,610	Que.....	27,313,339	9,972	27,323,311
P.E.I.....	462	24,488	24,950	Ont.....	12,552,793	165,725	12,718,518
N.S.....	367,784	349,689	717,473	Man.....	2,445,263	4,120	2,449,383
N.B.....	446,519	204,734	651,253	Sask.....	500,720	402,424	903,144
Que.....	25,522,221	8,702	25,530,923	Alta.....	340,884	528,180	869,064
Ont.....	11,228,553	95,854	11,324,407	B.C.....	2,407,454	127,958	2,535,412
Man.....	2,156,401	3,597	2,159,998	Yukon and			
Sask.....	491,571	366,517	858,088	N.W.T....	58,496	1,012	59,508
Alta.....	362,960	437,769	800,729	Canada,			
				1950.....	46,624,218	1,869,500	48,493,718

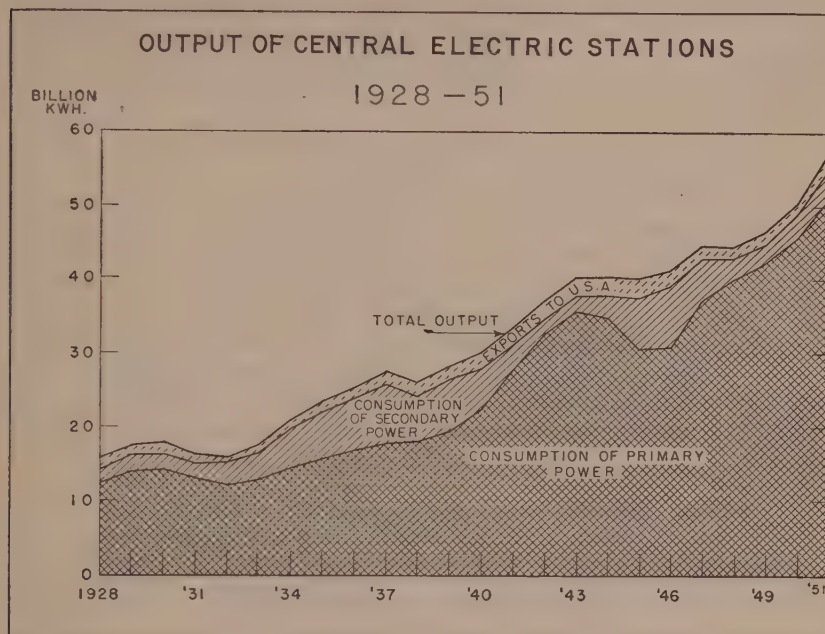
Subsection 1.—Statistics of Central Electric Stations*

The growth of the central electric station industry has been practically continuous since 1919, when statistics of kilowatt hours generated were first made available. Minor hesitations in output occurred in years of recession but the general movement has been strongly upward and, based on monthly data, the output of central stations during 1951 was more than ten times that of 1919. Ample electric power at reasonable rates has been a principal factor in the transformation of Canada over the past half century from a predominantly agricultural to an industrial nation.

The central electric station industry is one that is particularly suited to large-scale operation because of the huge outlay of capital necessary. Capital invested and total horsepower installed increased almost continuously even during the

* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

depression years, mainly because large power projects planned before the depression were in process of construction. Expansion since the end of World War II has been spectacular and large additional developments are currently under way (see pp. 554-569). Installed capacity of the industry in hydro and thermal units is now about equal to one horsepower for every Canadian.



5.—Summary Statistics of Central Electric Stations, 1941-1950

NOTE.—Figures for the years 1917-31 will be found at p. 369 of the 1940 Year Book; f or 1932-40 figures see p. 564 of the 1950 edition.

Year	Stations	Capital Invested	Revenue from Sale of Power ¹	Power Equipment Capacity ²	Kilowatt Hours Generated	Customers	Persons Employed	Salaries and Wages
	No.	\$	\$	h.p.	'000	No.	No.	\$
1941.....	607	1,641,460,451	186,080,354	8,157,585	33,317,663	2,081,270	19,880	31,647,952
1942.....	616	1,747,891,798	203,914,608	8,613,696	37,355,179	2,125,558	19,764	34,285,870
1943.....	622	1,778,224,640	204,801,508	9,602,794	40,479,593	2,169,148	19,120	35,785,932
1944.....	626	"	215,246,391	9,713,791	40,598,779	2,238,023	19,770	36,945,296
1945.....	800	"	215,105,473	9,666,947	40,130,054	2,333,230	21,283	39,521,365
1946.....	600	"	226,096,273	9,825,459	41,736,987	2,476,830	24,577	52,380,686 ³
1947.....	607	"	243,705,976	9,601,157	43,424,799	2,643,327	26,704	67,417,317
1948.....	635	"	257,377,490	10,038,541	42,389,681	2,822,027	29,349	68,765,222
1949 ⁴	650	"	280,311,624	10,637,798	44,418,573	3,076,369	31,746	78,272,815
1950 ⁴	665	"	323,833,465	11,703,161	48,493,718	3,269,824	32,873	88,988,681

¹ Excluding duplications.

² Not including auxiliary-plant equipment.

³ Not collected

after 1943. ⁴ Includes Newfoundland.

6.—Electric Energy Generated in Central Electric Stations, by Provinces, 1946-50

Province or Territory	1946	1947	1948	1949	1950
	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.
Newfoundland.....	...	...	...	200,610	147,470
Prince Edward Island.....	16,702	20,382	21,932	24,950	29,050
Nova Scotia.....	590,492	617,111	677,661	717,473	762,339
New Brunswick.....	592,923	592,458	591,636	651,253	696,519
Quebec.....	23,597,321	25,930,171	24,566,682	25,530,923	27,323,311
Ontario.....	10,778,135	11,191,693	11,095,608	11,324,407	12,718,518
Manitoba.....	2,389,375	2,031,754	2,055,709	2,159,998	2,449,383
Saskatchewan.....	270,691	762,882	804,994	858,088	903,144
Alberta.....	602,048	641,331	724,498	800,729	869,064
British Columbia.....	2,899,300	1,637,017	1,820,271	2,105,186	2,535,412
Yukon and N.W.T.....	1	1	30,690	44,956	59,508
Canada.....	41,736,987	43,424,799	42,389,681	44,418,573	48,493,718

¹ Included with British Columbia.

Domestic Service.—The power used by domestic customers or for residential purposes amounts to over 14 p.c. of the total production of central electric stations. Details of the number of domestic customers served, the kilowatt hours delivered and the costs to the customers, exclusive of direct federal, provincial and municipal taxes on such service, are shown in Table 7. The average consumption per customer and average cost per kilowatt hour vary considerably as between municipalities and also as between provinces, but the differences in the average bills are smaller. The availability of low-cost power to domestic users contributes greatly to the high standard of living enjoyed in Canada.

7.—Summary Statistics of Domestic Consumption of Electricity, 1941-50

Year	Customers	Consumption	Average Consumption per Customer	Average Charge per Annum	Average Charge per kwh.
	No.	'000 kwh.	kwh.	\$	cts.
1941.....	1,755,917	2,582,405	1,471	27.73	1.89
1942.....	1,803,708	2,716,895	1,506	28.11	1.87
1943.....	1,852,367	2,843,612	1,535	27.70	1.80
1944.....	1,906,452	3,046,980	1,598	27.96	1.75
1945.....	1,987,360	3,365,497	1,693	28.05	1.66
1946.....	2,104,549	3,881,677	1,844	29.85	1.62
1947.....	2,246,253	4,383,222	1,951	31.28	1.60
1948.....	2,398,847	4,984,280	2,078	33.32	1.60
1949.....	2,619,831	5,678,847	2,168	34.47	1.59
1950.....	2,797,378	6,750,303	2,413	38.97	1.61

Farm Service.—Table 8 shows the number of farm customers, the average annual consumption, average annual revenue and the average revenue per kilowatt hour sold to these customers in each province in 1950. Rural electrification has made considerable progress since the end of World War II. Farm customers added during 1950, totalled 52,861 and the national total at 303,727 increased by 21.1 p.c. over 1949. The relatively large number of farm customers in Ontario and the low average revenue per kilowatt hour is evidence of the assistance given in this field by the Ontario Government. It is estimated that over 48 p.c. of the farms in Canada now enjoy the benefits of power-line service. Many additional farms generate their own electricity by the use of engines, windmills, etc.

8.—Farm Service Furnished by Central Electric Stations, 1949 and 1950

NOTE.—Farm service was not reported separately in Newfoundland, Yukon Territory or the Northwest Territories.

Year and Province	Customers	Consumption of Electric Energy		Revenue Received		
		Total Kilowatt Hours	Average kwh. per Customer	Total	Average per Customer	Average per kwh.
	No.	No.	No.	\$	\$	cts.
1949						
Prince Edward Island.....	3,860	2,514,369	651	161,243	41.77	6.4
Nova Scotia.....	13,533	11,486,027	849	484,008	35.77	4.2
New Brunswick.....	28,490	20,181,747	708	1,000,490	35.12	5.0
Quebec.....	74,857	62,382,972	833	2,089,400	27.91	3.3
Ontario.....	106,134	293,267,952	2,763	4,806,085	45.28	1.6
Manitoba.....	11,155	23,570,763	2,113	780,295	69.95	3.3
Saskatchewan.....	2,299	2,022,198	880	146,742	63.83	7.3
Alberta.....	5,017	10,677,838	2,128	437,336	87.17	4.1
British Columbia.....	5,521	13,466,446	2,439	309,720	56.10	2.3
Totals, 1949.....	250,866	439,570,312	1,752	10,215,319	40.72	2.3
1950						
Prince Edward Island.....	4,916	4,445,837	904	273,508	55.64	6.2
Nova Scotia.....	18,371	13,788,320	751	545,182	29.68	4.0
New Brunswick.....	31,721	23,381,425	737	1,160,836	36.60	5.0
Quebec.....	83,618	78,472,220	938	2,654,548	31.75	3.4
Ontario.....	119,018	371,217,464	3,119	6,848,172	57.54	1.8
Manitoba.....	16,964	40,017,358	2,359	1,238,866	73.03	3.1
Saskatchewan.....	4,057	3,571,983	880	247,133	60.92	6.9
Alberta.....	7,866	17,698,835	2,250	598,608	76.10	3.4
British Columbia.....	17,196	34,155,084	1,986	748,781	43.54	2.2
Totals, 1950.....	303,727	586,748,526	1,932	14,315,634	47.13	2.4

Equipment of Central Electric Stations.—Auxiliary equipment includes only thermal engines and generators operated by them in hydraulic stations and in non-generating plants and does not include spare equipment in thermal stations or spare hydraulic equipment in hydraulic stations. Such equipment is classed as main-plant equipment. The capacities of the equipment are the manufacturers' ratings and, for water wheels and turbines, the kilowatt hour capacities vary with the supply of water. The majority of the hydraulic stations are large, serving wide areas over transmission lines, whereas most of the plants with thermal engines are small, serving the needs of the local municipality. The number of thermal engines increased from previous years. Equipment data were not included for small industries or firms, mainly in Saskatchewan and Alberta, whose output was largely consumed by their own plants.

9.—Main-Plant Equipment of Central Electric Stations, by Provinces, and Total Auxiliary Equipment, 1949 and 1950

NOTE.—Kva. means kilo-volt-amperes.

Year, Type of Equipment, Province or Territory	Gener- ating Power Plants	Water Wheels and Turbines			Thermal Engines			Generators		
		No.	Capacity	Average Capacity	No.	Capacity	Average Capacity	No.	Capacity	Average Capacity
1949	No.		h.p.	h.p.		h.p.	h.p.		kva.	kva.
MAIN-PLANT EQUIPMENT										
Nfld.....	18	28	54,715	1,954	4	264	66	33	46,308	1,403
P.E.I.....	8	6	387	65	15	9,640	643	20	7,640	382
N.S.....	49	60	126,158	2,103	39	118,044	3,027	99	208,505	2,106
N.B.....	18	14	104,260	7,447	30	82,381	2,746	44	161,080	3,661
Que.....	99	281	5,718,507	20,351	17	2,840	167	300	4,875,585	16,252
Ont.....	130	322	2,574,500	7,995	11	46,650	4,241	334	2,097,119	6,279
Man.....	13	42	466,800	11,114	12	2,242	187	52	377,501	7,260
Sask.....	135	6	106,500	17,750	188	204,686	1,089	191	252,079	1,320
Alta.....	89	11	105,300	9,573	140	171,526	1,225	149	239,853	1,610
B.C.....	86	70	706,548	10,094	84	25,433	303	152	615,421	4,049
Yukon and N.W.T.....	5	3	9,730	3,243	6	687	115	9	9,201	1,022
Canada ...	650	843	9,973,405	11,831	546	664,393	1,217	1,383	8,890,292	6,428
AUXILIARY-PLANT EQUIPMENT										
...	...	...	...	...	128	245,478	1,918	123	213,410	1,735
Grand Totals, 1949	650	843	9,973,405	11,831	674	909,871	1,350	1,506	9,103,702	6,045
1950										
MAIN-PLANT EQUIPMENT										
Nfld.....	18	28	54,715	1,954	4	264	66	33	46,308	1,403
P.E.I.....	7	5	369	74	16	11,240	703	20	9,035	452
N.S.....	50	63	143,958	2,285	36	117,849	3,274	99	222,851	2,251
N.B.....	19	14	104,260	7,447	32	82,636	2,582	46	161,330	3,507
Que.....	99	281	5,904,389	21,012	17	2,840	167	298	5,031,893	16,886
Ont.....	139	360	3,248,752	9,024	9	47,205	5,245	370	2,636,072	7,125
Man.....	9	44	594,300	13,507	10	2,182	218	53	442,488	8,349
Sask.....	139	6	106,500	17,750	201	206,625	1,028	205	253,488	1,237
Alta.....	92	11	105,300	9,573	135	173,096	1,282	143	241,039	1,686
B.C.....	86	71	757,526	10,669	95	27,993	295	164	671,081	4,092
Yukon and N.W.T.....	7	3	9,730	3,243	13	1,432	110	16	9,808	613
Canada ...	665	886	11,029,799	12,449	568	673,362	1,185	1,447	9,725,393	6,721
AUXILIARY-PLANT EQUIPMENT										
...	...	...	...	...	141	273,080	1,937	136	234,824	1,727
Grand Totals, 1950	665	886	11,029,799	12,449	709	946,442	1,335	1,583	9,960,217	6,292

Export and Import of Electric Power.—Electric energy is exported from Canada only under licence and an export tax of 0.03 cents per kilowatt hour is levied with some exceptions. The export duties for the years ended Mar. 31, 1948 to 1950, were \$470,627, \$435,867 and \$431,895, respectively.

Exports for the years 1948-51 are shown in Table 10. There are also large interprovincial movements of electric energy from Quebec to Ontario, and smaller movements from Quebec to New Brunswick, Manitoba to Ontario, Saskatchewan to Manitoba and British Columbia to Alberta.

The water allowed to be diverted at Niagara Falls for power purposes was increased by 5,000 cu. ft. per second to the Canadian side in November 1940, owing to a diversion of water from Long Lake and the Ogoki River from the James Bay watershed to the Great Lakes watershed. In 1941 a further increase of 9,000 c.f.s. to the Canadian plants and 12,500 c.f.s. to the United States plants was permitted, and in 1943 an additional 4,000 c.f.s. to Canadian plants, bringing the totals up to 54,000 c.f.s. for Canada and 32,500 c.f.s. for the United States. This increased water, with greater development of plants on the St. Lawrence River, made possible the increased export of both firm and secondary power to the United States (5,000 c.f.s. will produce about 150,000 h.p. at the Queenston, Ont., plant). During 1948 and 1949 increased demands from domestic consumers and low water reduced the surplus energy available for export but exports increased again in 1950 and 1951.

10.—Electric Energy Exported from Canada, by Companies, and Imported from the United States, 1948-51

Company	1948	1949	1950	1951
	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.
Exports to United States—				
Hydro-Electric Power Commission of Ontario.....	380,704	301,037	361,458	392,036
Hydro-Electric Power Commission of Ontario (surplus).....	231,290	335,141	347,246	717,387
Canadian Niagara Power Company.....	325,000	267,802	264,955	303,660
Canadian Niagara Power Company (surplus).....	73,191	39,560	35,171	37,966
Ontario and Minnesota Power Company.....	30,225	22,069	36,867	39,340
Maine and New Brunswick Electric Power Company.....	24,530	34,126	36,830	39,129
Maine and New Brunswick Electric Power Company (surplus).....	1,841	3,491	4,086	2,113
British Columbia Electric Railway Company.....	14,208	93,898	191,878	188,186
Southern Canada Power Company.....	2,247	2,109	2,308	2,976
Quebec Hydro-Electric Commission.....	650,291	648,904	639,464	644,017
Canadian Cottons, Limited, Milltown, N.B.	60	—	—	—
Fraser Companies, Limited.....	9,121	8,251	5,212	8,319
Northport Power and Light Company.....	38	47	52	43
Northern B.C. Power Company.....	36	36	22	19
Detroit and Windsor Subway Company.....	327	320	317	325
Manitoba Power Commission.....	—	—	1	6
Totals, Exports.....	1,743,109	1,756,791	1,925,867	2,375,522
Imports from United States¹.....	84,994	26,099	1,434	7,776

¹ Mainly by British Columbia Electric Railway Company.

Subsection 2.—Ownership and Regulation of Central Electric Stations*

Water power is developed in Canada by provincial commissions, by municipalities and by private companies—hydro-electric plants. The first such provincial commission was formed in Ontario in 1906 to act as trustee for a group of municipalities to develop and distribute electricity. The Hydro-Electric Power Commission of Ontario now generates and purchases power, transmits it to rural and urban municipalities and serves large power customers. Similar commissions have been formed in most of the other provinces.

* The information included under the provincial headings of this Subsection has been revised by the various provincial commissions or authorities concerned.

11.—Summary Statistics of Publicly Owned Central Electric Stations, 1941-50

Year	Power Plants	Customers	Electric Energy Generated	Power Equipment (Main plant only)	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1941.....	183	1,126,364	8,523,915	2,031,250	2,240,425
1942.....	188	1,140,499	9,177,792	2,134,845	2,344,310
1943.....	197	1,159,545	9,397,354	2,135,395	2,362,853
1944.....	202	1,484,784	14,910,198	3,092,295	3,340,268
1945.....	208	1,566,676	14,599,195	3,118,324	3,372,826
1946.....	203	1,650,739	14,739,271	3,274,484	3,523,463
1947.....	230	1,772,919	15,759,275	3,380,900	3,665,032
1948.....	242	1,884,642	16,692,388	3,632,636	3,993,323
1949 ¹	259	2,033,418	17,686,684	3,784,484	4,208,495
1950 ¹	270	2,200,957	20,061,314	4,558,449	4,987,095

¹ Includes Newfoundland.

A large portion of the power development in Quebec is connected with pulp and paper plants and with the aluminum industry. Such power plants are operated as separate organizations and deliver power to the parent companies at relatively low rates. Substantial blocks of power are also produced in Quebec for export to Ontario.

Table 12 shows statistics of municipally or publicly owned central electric stations, by provinces, for 1949 and 1950. Table 14 shows comparable statistics for commercial stations.

12.—Publicly Owned Central Electric Stations, by Provinces, 1949 and 1950

Year and Province or Territory	Generating Power Plants	Customers	Electric Energy Generated	Power Equipment (main plant only)	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1949					
Newfoundland.....	1	189	97	—	264
Prince Edward Island.....	1	1,867	5,572	—	2,590
Nova Scotia.....	28	47,226	273,998	84,080	91,855
New Brunswick.....	12	77,392	215,105	12,860	94,241
Quebec.....	23	410,586	6,001,323	1,133,435	1,133,615
Ontario.....	85	1,112,185	9,557,798	2,213,289	2,213,874
Manitoba.....	5	114,894	812,625	201,000	202,270
Saskatchewan.....	58	102,192	292,943	—	171,628
Alberta.....	10	94,709	325,175	—	138,211
British Columbia.....	35	72,175	186,221	132,090	152,217
Yukon and Northwest Territories..	1	3	15,827	7,730	7,730
Canada, 1949.....	259	2,033,418	17,686,684	3,784,484	4,208,495
1950					
Newfoundland.....	1	230	173	—	264
Prince Edward Island.....	1	2,227	7,083	—	4,190
Nova Scotia.....	28	56,356	263,661	96,880	104,460
New Brunswick.....	12	84,307	233,718	12,860	94,241
Quebec.....	24	416,052	6,676,885	1,247,835	1,248,015
Ontario.....	93	1,223,460	11,031,003	2,853,304	2,853,784
Manitoba.....	4	128,513	832,399	201,000	202,270
Saskatchewan.....	59	109,387	337,149	—	173,013
Alberta.....	9	103,136	369,055	—	138,126
British Columbia.....	37	77,203	283,329	138,840	160,482
Yukon and Northwest Territories..	2	86	26,859	7,730	8,250
Canada, 1950.....	270	2,200,957	20,061,314	4,558,449	4,987,095

Summary statistics of privately owned central electric stations are given for the years 1941 to 1950 in Table 13.

13.—Summary Statistics of Privately Owned Central Electric Stations, 1941-49

Year	Generating Power Plants	Customers	Electric Energy Generated	Power Equipment (main plant only)	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1941.....	424	954,906	24,784,691	5,753,150	5,917,160
1942.....	428	985,059	28,177,387	6,099,440	6,269,386
1943.....	425	1,009,603	31,082,239	7,069,774	7,239,936
1944.....	424	753,239	25,688,581	6,175,674	6,373,523
1945.....	392	766,554	25,530,857	6,098,240	6,294,121
1946.....	397	826,091	26,997,716	6,104,383	6,301,996
1947.....	377	870,408	27,665,524	5,750,950	5,936,125
1948.....	393	937,385	25,697,293	5,837,670	6,045,218
1949.....	391	1,042,951	26,731,889	6,188,921	6,429,303
1950 ¹	395	1,068,867	28,432,404	6,471,350	6,716,066

¹ Includes Newfoundland.

The predominant position of Quebec in the electric-power field can be seen from the figures of Table 14. Of the total power generated in Canada by all central electric stations in 1950, 43 p.c. was generated by privately owned or commercial stations in the Province of Quebec; this percentage decreased from 57 in 1943 as a result of the transfer, in 1944, of the Montreal Light, Heat and Power Company and the Beauharnois Power Company to the publicly owned Quebec Hydro-Electric Commission.

In 1950, all stations in Ontario produced less than one-half as much power as the Quebec stations and only 13 p.c. of the total for Ontario stations was produced by privately owned stations.

14.—Privately Owned Central Electric Stations, by Provinces, 1949 and 1950

Year and Province or Territory	Generating Power Plants	Customers	Electric Energy Generated	Power Equipment (main plant only)	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1949					
Newfoundland.....	17	31,590	200,513	54,715	54,715
Prince Edward Island.....	7	9,010	19,378	387	7,437
Nova Scotia.....	21	84,237	443,475	42,078	152,347
New Brunswick.....	6	24,934	436,148	91,400	92,400
Quebec.....	76	447,795	19,529,600	4,585,072	4,587,732
Ontario.....	45	77,090	1,766,609	361,211	407,276
Manitoba.....	8	48,570	1,347,373	265,800	266,772
Saskatchewan.....	77	11,903	565,145	106,500	139,558
Alberta.....	79	62,236	475,554	105,300	138,615
British Columbia.....	51	243,580	1,918,965	574,458	579,764
Yukon and Northwest Territories..	4	2,006	29,129	2,000	2,687
Canada, 1949.....	391	1,042,951	26,731,889	6,188,921	6,429,303
1950					
Newfoundland.....	17	33,396	147,297	54,715	54,715
Prince Edward Island.....	6	10,140	21,967	369	7,419
Nova Scotia.....	22	89,143	498,678	47,078	157,347
New Brunswick.....	7	26,308	462,801	91,400	92,655
Quebec.....	75	484,412	20,646,426	4,656,554	4,659,214
Ontario.....	46	38,207	1,687,515	395,448	442,173
Manitoba.....	5	50,750	1,616,984	393,300	394,212
Saskatchewan.....	80	12,266	565,995	106,500	140,112
Alberta.....	83	68,862	500,009	105,300	140,270
British Columbia.....	49	253,219	2,252,083	618,686	625,037
Yukon and Northwest Territories..	5	2,164	32,649	2,000	2,912
Canada, 1950.....	395	1,068,867	28,432,404	6,471,350	6,716,066

Because of the absence of free market determination of prices and regulation of services in an industry that is semi-monopolistic, regulation of electrical utilities has been attempted in most provinces. The governing bodies of the provincial electric-power commissions, their functions and activities are summarized by provinces in the following paragraphs. In certain cases, privately owned utilities are also covered.

Newfoundland.—There are no publicly owned hydro-electric systems in Newfoundland. Of the total installed turbine capacity of 292,890 h.p. at the end of 1951, 245,550 h.p. was utilized by the two large pulp and paper companies—Anglo-Newfoundland Development Company Limited and Messrs. Bowater's Newfoundland Pulp and Paper Mills Limited—for their own manufacturing requirements and for the provision of light and power to the municipalities in their vicinities. The remainder was distributed among four other privately owned companies, the largest being the Newfoundland Light and Power Company which supplies the City of St. John's and the town of Bell Island together with the mining operations there. This Company has a turbine installation of 37,900 h.p. at five plants all on the eastern side of the Avalon Peninsula to which a proposed development at Horse Chops River, Cape Broyle, will add 8,500 h.p. One municipally owned steam plant, with a capacity of 264 h.p., operates at the town of Lewisporte.

Nova Scotia.—Legislation relating to the use of water power was first enacted in Nova Scotia in 1909 under "An Act for the Further Assistance of the Gold Mining Industry". In 1914, legislation was passed initiating the development of water power in the Province and this was carried on in an investigatory manner in co-operation with the Federal Government until 1919 when the Nova Scotia Power Commission was created under the Power Commission Act. Certain investigatory work is still carried on in Nova Scotia by the Federal Government in close association with the Commission. The control of the water resources of the Province is vested in the Crown and is administered under the provisions of the Nova Scotia Water Act of 1919. The Commission pays the regular fees for water rights.

The function of the Commission is to supply electric power and energy by the most economical means available. The Rural Electrification Act of 1937 greatly increased the possibilities for retail service by providing for financial assistance to equalize cost and revenue of extensions, the construction of which has been approved by the Governor in Council as qualifying under the Act. In 1941, an amendment to the Power Commission Act authorized the Commission, subject to the approval of the Governor in Council, to regulate and control the generation, transmission, distribution, supply and use of power in the Province.

Financially, the Commission is self-supporting, repaying borrowings from revenue. The balance sheet at Nov. 30, 1950, showed total fixed assets of \$29,266,677, including work in progress amounting to \$4,638,804. Current assets amounted to \$325,550. Liabilities are shown as follows: fixed \$23,088,483; current \$1,927,044; contingency and renewal reserves \$2,884,464; sinking fund reserves \$4,566,241; and general reserves and special reserves \$1,595,944.

The initial development of the Commission was an 800 h.p. installation on the Mushamush River which went into operation in 1921 and delivered 192,000 kwh. in the first complete year of operation. Succeeding years showed a marked growth in installed capacity, reaching 92,450 h.p. in hydraulic turbines, 2,012 h.p. in diesel units and 1,125 kw. in steam turbines by Nov. 30, 1950, with a total generation for that year of 253,058,860 kwh.

The territory of the Commission extends the entire length of the Province and embraces nine systems which include 22 generating stations and 3,426 miles of transmission and distribution lines, through which 44 wholesale and 21,919 retail customers received 242,467,861 kwh. during the year ended Nov. 30, 1950.

The installed capacity and annual output of the various systems of the Nova Scotia Power Commission are given in Table 15. The Commission had under construction a plant of 8,600 h.p. on the Bear River scheduled for operation in 1952.

15.—Capacity and Output of the Nova Scotia Power Commission, 1950

Systems	First Year of Operation	Installed Capacity		Annual Generation	
		Initial	1950	Initial	1950
		h.p.	h.p.	kwh.	kwh.
Hydro					
Mushamush.....	1921	800	330	208,752	832,500
St. Margaret.....	1922	10,700	15,700	19,538,000	24,483,800
Sheet Harbour—					
Malay Falls.....	1924	5,550	5,550	6,536,860	7,973,327
Ruth Falls.....	1925	6,290	10,590	7,361,117	25,960,760
Mersey—					
Original development.....	1928	29,400	29,400	85,863,390	111,945,100
Cowie Falls.....	1938	10,200	10,200	37,866,000	37,105,000
Tusket.....	1929	2,820 ¹	2,820 ¹	3,680,540	9,847,240
Roseway.....	1930	560	1,060	365,600	4,011,800
Markland.....	1931	1,400	1,200	5,813,555	3,737,805
Deep Brook.....	1950	12,800	12,800	11,154,000	11,154,000
Antigonish.....	1931	²	—	389,520 ³	—
Barrie Brook.....	1940	500	500	1,780,734	2,128,950
Dickie Brook.....	1948	3,500	3,500	8,920,000	6,675,950
Thermal					
Canseau Diesel.....	1937	72	1,320	21,650	718,338
Canseau Steam.....	1945	1,125 ⁴	1,125 ⁴	4,437,280	6,484,300

¹ Minimum head.

² Distribution only.

³ Purchased energy.

⁴ Rated in kilowatts.

New Brunswick.—The New Brunswick Electric Power Commission was incorporated under the Electric Power Act, 1920. Generating stations owned and operated by the Commission are as follows:—

<u>Plant</u>	<u>Type</u>	<u>Capacity</u>	<u>Plant</u>	<u>Type</u>	<u>Capacity</u>
		h.p.			h.p.
Musquash.....	Water power.....	10,000	St. Stephen	Diesel.....	2,500
Grand Lake.....	Steam.....	43,550	Campobello.....	Diesel.....	335
Saint John.....	Steam.....	25,500	Andover.....	Diesel.....	535
Chatham.....	Steam.....	16,750	Shippegan.....	Diesel.....	2,680
Grand Manan.....	Diesel.....	1,045			
St. Quentin.....	Diesel.....	950			
			TOTAL CAPACITY.....		103,845

The Musquash, Grand Lake, Saint John and Chatham plants are interconnected and operate in parallel at all times. The St. Stephen and Shippegan plants also may be paralleled with the system as required.

A new steam plant was placed in operation at Grand Lake in the autumn of 1951, adding 16,750 h.p. to the Commission's generating capacity. A 25,000 h.p. unit will be in service in this same plant late in 1952.

High-voltage transmission was increased from 646 miles in 1949 to 694 miles in 1951. Power is sold "en bloc" to the cities of Saint John, Moncton and Fredericton and to the town of Sussex.

The statistical information given in Table 16 shows the growth of the Commission's undertakings since 1924.

16.—Growth of the New Brunswick Electric Power Commission, Years Ended Oct. 31, 1924, 1945 and 1948-51

Item	1924	1945	1948	1949	1950	1951 ¹
High-voltage trans- mission line..... miles	138	348	476	566	646	694
Distribution line..... "	67	2,326	3,428	4,334	5,255	5,623
Indirect customers.... No.	11,561	—	—	—	—	40,393 ²
Direct customers..... "	1,129	24,166	38,908	44,822	52,255	53,777
Plant capacities..... h.p.	11,100	37,590	87,295	87,295	87,295	87,095
Power generated..... kwh.	15,500,000	122,508,320	195,878,655	222,951,910	242,302,755	114,373,065
Capital invested..... \$	3,780,000	11,509,962	22,286,778	27,175,441	31,357,828	33,857,407
Revenue..... \$	310,000	2,024,468	3,544,717	4,073,979	4,768,746	2,385,054

¹ Five months—Nov. 1, 1950, to Mar. 31, 1951—due to change in Commission's fiscal year-end from Oct. 31 to Mar. 31.

² Estimate.

Quebec.—*The Quebec Streams Commission.*—Created by S.Q. 1 Geo. V, c. 5, and given additional powers by 3 Geo. V, c. 6 (R.S.Q. 1925, c. 46) and 20 Geo. V, c. 34, the Quebec Streams Commission was authorized to ascertain the water resources of the Province, to make recommendations regarding their control, and to construct certain storage dams and operate them so as to regulate the flow of streams. It has assisted companies engaged in such work by the systematic collection of data on the flow of the principal rivers and on meteorological conditions, by investigation of numerous water-power sites and determination of the longitudinal profile of a large number of rivers, but mainly by the regulation of the flow of the principal power streams through the construction of storage dams.

From 1912 to 1925, a number of storage reservoirs were built or acquired by the Commission, charges being made to benefiting companies to cover interest and amortization on the capital invested as well as the cost of operation. Since 1925, companies or persons have availed themselves of the latitude given them by R.S.Q. 1925, c. 46, to build the necessary dams; such storages have been transferred to and are operated by the Commission, the cost of operation only being charged annually to the interested companies or persons. The Commission now controls and operates 28 storage-reservoirs in the Province.

Among the rivers controlled by the Commission, either by means of dams on the rivers or by controlling the outflow of lakes at the head-waters, are: the St. Maurice, now developing 1,110,550 h.p.; the Gatineau, 523,000 h.p.; the Lièvre, 274,000 h.p.; the St. Francis, 100,000 h.p.; the Chicoutimi, 41,400 h.p.; the Au Sable, 33,200 h.p.; and the Metis, 15,700 h.p. The Commission also operates nine reservoirs on Rivière du Nord, two in the watershed of the Ste. Anne-de-Beaupré River, and one at the outlet of Lake Morin, on Rivière-du-Loup (en bas).

Reservoirs not Controlled by the Quebec Streams Commission.—Among storage-reservoirs not controlled or operated by the Commission are: the Lake St. John, the Lake Manouane and Passe Dangereuse on the Peribonca River, and the Onatchiway on the Shipshaw River; the Témiscouata Lake on Madawaska River, controlled by the Gatineau Power Company; Memphremagog Lake on the Magog

River, controlled by the Dominion Textile Company; Témiscamingue and Quinze Lakes on the Ottawa River, controlled by the Federal Department of Public Works; Kipawa Lake on the Ottawa River, controlled by the Gatineau Power Company; and Dozois Lake on the Upper Ottawa River, controlled by the Quebec Hydro-Electric Commission.

Power developments on the Saguenay River, benefiting from the Peribonca and Lake St. John reservoirs, amount to 1,950,000 h.p. since the Chute-à-Caron (Shipshaw) project has been completed.

The Quebec Hydro-Electric Commission.—The Quebec Hydro-Electric Commission was established by S.Q. 8 Geo. VI, c. 22, with the object of supplying power to the municipalities, industrial or commercial undertakings and to citizens of the Province of Quebec at the lowest rates consistent with sound financial administration.

On Apr. 15, 1944, in accordance with the provisions of this Act, the Commission took over: (a) the system of Montreal Light, Heat and Power Consolidated for the generating and distribution of electricity; (b) the undertaking of the Montreal Island Power Company for the generating and distribution of electricity; and (c) all the shares of the capital stock of the Beauharnois Light, Heat and Power Company. Thus, the Quebec Hydro-Electric Commission now controls, among other assets, the following hydro-electric plants:—*

<i>Hydro-Electric Plant</i>	<i>River</i>	<i>Installed Capacity</i>
		<i>h.p.</i>
Cedars.....	St. Lawrence.....	200,000
Chambly.....	Richelieu.....	9,000
Sault-au-Recollet.....	Rivière-des-Prairies.....	45,000
Beauharnois.....	St. Lawrence.....	1,030,000
Rapid VII.....	Upper Ottawa.....	64,000

The Commission operates a public utility system which supplies electric light and power requirements to Greater Montreal and surrounding districts, embracing a population of nearly 1,500,000. From the Cedars plant, electric energy is supplied to the Aluminum Company of America at Massena, N.Y., and through Beauharnois Light, Heat and Power Company power is sold to the Hydro-Electric Power Commission of Ontario. Sales involved are in the neighbourhood of rates of 100,000 h.p. to Massena, N.Y., and 250,000 h.p. to Ontario.

* The Commission also purchases 160,000 h.p. from the Shawinigan Water and Power Company.

17.—Growth of the Quebec Power Systems, 1942-51

NOTE.—Figures for the years 1935-41 will be found at p. 572 of the 1950 Year Book.

Year	Municipalities Served	Customers Served	Power Distributed	
			Total	Primary
	No.	No.	h.p.	h.p.
1942.....	61	289,038	1,032,000	827,000
1943.....	61	293,005	1,044,000	942,000
1944.....	61	298,767	1,060,000	897,000
1945.....	61	305,049	1,045,000	883,000
1946.....	61	309,022	1,085,000	947,000
1947.....	61	318,984	1,127,000	980,000
1948.....	61	330,799	1,202,000	1,034,000
1949.....	61	349,347	1,233,000	1,119,000
1950.....	64	368,026	1,296,000	1,182,000
1951.....	66	387,218	1,312,000	1,312,000

18.—Distribution of Primary Power to Systems, 1946-51

(Coincident with Montreal System peak)

System	1946	1947	1948	1949	1950	1951
	<i>h.p.</i>	<i>h.p.</i>	<i>h.p.</i>	<i>h.p.</i>	<i>h.p.</i>	<i>h.p.</i>
Montreal System.....	538,000	567,000	620,000	669,000	730,000	803,000
Beauharnois Local System.....	34,000	35,000	36,000	70,000	65,000	171,000
Beauharnois 25-cycle System (H.E.P.C. of Ontario).....	250,000	250,000	250,000	250,000	250,000	250,000
Massena System.....	125,000	128,000	128,000	130,000	137,000	80,000
Shawinigan System.....	—	—	—	—	—	8,000
Totals.....	947,000	980,000	1,034,000	1,119,000	1,182,000	1,312,000

In addition to the ownership and operation of these generating and distributing systems, the Quebec Hydro-Electric Commission administers the 64,000 h.p. Upper Ottawa River plant at Rapid VII and also the Dozois Reservoir. Average primary power statistics for this Northern Quebec System (Cadillac-Noranda district) are as follows: 1946, 15,750 h.p.; 1947, 18,140 h.p.; 1948, 21,270 h.p.; 1949, 34,790 h.p.; 1950, 35,500 h.p.; and 1951, 30,550 h.p.

Ontario.—The Hydro-Electric Power Commission of Ontario is a corporate body administering a province-wide co-operative enterprise to produce and distribute electric power. The members of the Commission, a Chairman and two Vice-Chairmen, are appointed by the Lieutenant-Governor in Council to hold office during pleasure. One Commissioner must be a member, and two may be members, of the Executive Council of the Province of Ontario.

The Commission was created in 1906 by an enactment of the Ontario Legislature, after consideration of recommendations made by advisory commissions which had been appointed in response to public demand that the water powers of Ontario should be conserved and developed for the benefit of all the people of the Province.

The Commission operates under the authority of the Power Commission Act (S.O. 7 Ed. VII, c. 19) passed in 1907 as an amplification of the Act of 1906 and subsequently modified by numerous amending Acts (R.S.O. 1950, c. 281). It is a separate entity, a self-sustaining public concern endowed by the Power Commission Act with broad powers to produce, buy and distribute electricity, and to perform certain regulatory functions with respect to the activities of the electrical utility commissions of the member municipalities. The enterprise represented by the Commission is generally known and referred to as the Ontario Hydro.

The Year Book 1940 contains a general article on the Ontario Hydro, to which reference has been made in succeeding editions. It deals with the early history of The Hydro-Electric Power Commission of Ontario from its founding in 1906 and sketches the later development of the Commission both in organization and resources which followed the lines so well established by the first Chairman, Sir Adam Beck.

The undertaking initially proposes to purchase a block of 100,000 h.p. from the Ontario Power Company Limited at Niagara Falls and to distribute this to thirteen municipalities which had signed the original contracts with the Commission to take power at cost. In 1909 the task of constructing a transmission system to distribute power to the member municipalities was begun, and, by the end of the following year, power was being supplied to several of them. Similarly,

and at about the same time, the Commission built a short transmission line and a substation to serve Port Arthur with power purchased from the Kaministiquia Power Company. These two pioneer systems eventually grew into the Southern Ontario and Thunder Bay Systems, respectively.

In 1911 the Severn System was established and, in the years following, other systems were established to serve groups of municipalities in various sections of the Province. By 1919 the number of systems had reached eleven, where it remained until 1924 when the Severn and two other systems were consolidated to form the Georgian Bay System. In 1929-30 a further consolidation of four systems created the Eastern Ontario System. During the 1930's the Commission undertook to operate, in trust for the Provincial Government, what have been known as the Northern Ontario Properties. These were a group of systems which mainly served mining and pulp and paper industries but which were not interconnected. In 1944 the Southern Ontario System came into being through the consolidation of the former Niagara, Georgian Bay and Eastern Ontario Systems.

In 1914 the Commission purchased its first generating station, Big Chute on the Severn River. Later in the same year, the first Commission-built generating station at Wasdells Falls, also on the Severn River, was placed in service. The program of purchase and construction of generating stations thus launched reached its climax between 1917 and 1925 in the construction of the great Queenston-Chippawa development, recently renamed Sir Adam Beck-Niagara Generating Station No. 1, which first delivered power early in 1922. Yet, commencing four years later, the Commission found it necessary to negotiate for the extensive purchase of power from large Quebec suppliers in order to satisfy Ontario's steadily growing demand.

During the three decades between 1921 and 1951 the population of Ontario, as measured at decennial censuses, increased by 17 p.e., 10.4 p.c. and 21.4 p.c. Measured against these very satisfactory rates of increase, the growth of Ontario Hydro has been phenomenal. In 1921 the capital investment of the Commission and its member municipalities was about \$151,000,000. By 1931, it had more than doubled; by 1941, it exceeded \$481,000,000; and by 1951, midway in the current program of expansion, it exceeded \$1,200,000,000. In 1931, the Commission generated and purchased 4,600,000,000 kwh. of electric energy. Corresponding totals for 1941 and 1951 were 10,700,000,000 kwh. and 18,800,000,000 kwh. The dependable peak capacity of the generating stations owned or operated by the Commission rose from 314,400 kw. in 1921, to 820,500 kw. in 1931, to 1,054,800 kw. in 1941, and to 2,237,550 kw. in 1951.

June 1, 1951, was the thirtieth anniversary of the coming into force of the Rural Hydro-Electric Distribution Act. Since 1921 the Commission has vigorously pressed its rural electrification program, assisted by Provincial Government grants in aid of construction of rural distribution facilities. In 1931 the Commission served 54,280 rural customers, in 1941 it served 131,254 and at the close of 1951 it served 318,606. The introduction in 1944 of a uniform rate plan for rural service throughout the Province was a significant event in the latter decade. The number of farms served during 1951 was 85 p.e. of the total number of Ontario farms as calculated on 1951 Census returns. In 1951 the Commission spent \$20,300,000 on its rural program, of which the Provincial Government's share was \$10,000,000.

The rapid growth in power demand that has marked the past decade has taxed the power resources of the Commission to the full. It has been matched by remarkable achievements in the construction of new, and the extension of existing

generating stations. Among recent notable hydro-electric developments have been three major generating stations on the Ottawa River—Des Joachims, Chenaux, and Otto Holden—Pine Portage serving Thunder Bay, and George W. Rayner Generating Station in Ontario's northeastern mining area. The construction of two major fuel-electric generating stations at Toronto and Windsor, named for Richard L. Hearn and J. Clark Keith, respectively, marks a departure from the Commission's virtually complete reliance on hydraulic resources. A summary of the Commission's power development program appears in Table 20.

At present the major capital undertaking, made possible by the Niagara Treaty of 1950, is the construction of the Sir Adam Beck-Niagara Generating Station No. 2 near Queenston on the Niagara River. Plans call for an ultimate installation of 900,000 kw. in 12 units. The first stage, seven units, is expected to be completed in 1955. The best answer to the need for power beyond that year is the St. Lawrence power project.

In 1949 the Commission embarked on a complex program of standardizing at 60 cycles the frequency of the Southern Ontario System. Approximately 33 p.c. of the area comprising the so-called "25-cycle island" had been standardized by 1951. A comprehensive article on this subject appears in the Year Book 1951, pp. 540-548.

The basic principle governing the financial operations of the Commission is that electrical service is provided to the municipalities, and by the municipalities to the customers, at cost. Cost includes not only all operating and maintenance charges interest on capital investment, and reserves for depreciation, for contingencies and obsolescence, and for stabilization of rates, but also a reserve for a sinking fund to retire the Commission's capital debt.

From its inception, the undertaking has been entirely self-supporting with the exception that the Provincial Government, through grants-in-aid, provides for 50 p.c. of the capital cost of the rural distribution lines. This is done in pursuance of the Province's long-established policy of assisting agriculture. The Province also guarantees the payment of principal and interest of all bonds issued by the Commission and held by the public.

With a few exceptions all townships and 150 of the smaller villages are now served as an amalgamated rural division of Hydro service with a uniform rate structure. Thus, no matter where rural service is supplied in Ontario by Hydro, all rural customers pay the same amount for the same class of service with the same consumption of electricity.

The undertaking as a whole involves two distinct phases of operations. The *first* phase of operations is the provision of the power supply—either by generation or purchase—and its transformation, transmission and delivery in *wholesale* quantities to individual municipal utilities, to large industrial customers and to rural power districts. This phase of the operations is performed by The Hydro-Electric Power Commission of Ontario. The *second* phase of operations is the *retail* distribution of electric energy to customers within the limits of the areas served by the various municipal utilities and throughout the rural areas of the

Province. For the consolidated rural power districts, the Commission not only provides the power wholesale but also, on behalf of the respective townships, attends to all physical and financial operations connected with the retail distribution of energy to the customers within the rural operating areas into which the consolidated rural power districts are divided for administrative purposes.

In cities, towns, many villages, and certain thickly populated areas of townships, retail distribution of electric energy provided by the Commission is, in general, conducted by municipal commissions under the general supervision of The Hydro-Electric Power Commission of Ontario, as provided for in the Power Commission Act and the Public Utilities Act.

The total assets of the Commission at Dec. 31, 1951, amounted to \$1,036,029,755. This is the sum of the assets of the Commission in the Southern Ontario and Thunder Bay Systems and the Northern Ontario Properties after deducting accumulated depreciation of \$116,945,857. Rural assets under administration at the end of the year amounted to \$127,227,145, of which \$63,015,165, provided by the Province of Ontario in the form of grants-in-aid, is excluded from the total assets figure given above. The municipal electrical commissions had assets amounting to \$329,051,074, of which \$118,269,171 represented an equity in the Commission's systems.

The following tables give statistics of resources generated and purchased, development program, distribution and service of the Commission. In 1950 the Commission changed its fiscal year (formerly ended Oct. 31) to coincide with the calendar year. Thus, data shown for the year 1950 cover the 14 months ended Dec. 31, 1950, while those for the year 1951 were for the 12 months of that year. All year-end statistics for 1950 and 1951 relate to the months of December for the respective years while those for years previous to 1950 are for the month of October of the given year. Demands for primary power usually reach their seasonal maxima in December.

19.—Resources Generated and Purchased—All Systems, as at December 1950 and 1951

Year and System	Commission's Generating Stations				Power Purchased	
	Hydro-electric ¹		Fuel-electric ¹			
	kw.	h.p.	kw.	h.p.	kw.	h.p.
December 1950—						
Southern Ontario System.....	1,363,900	1,828,284	53,000	71,046	764,100	1,024,263
Thunder Bay System.....	232,000	310,992	—	—	600	804
Northern Ontario Properties....	316,200	423,861	500	670	—	—
Totals, Resources.....	1,912,100	2,563,137	53,500	71,716	764,700	1,025,067
December 1951—						
Southern Ontario System.....	1,484,150	1,989,477	202,000	270,778	703,100	942,493
Thunder Bay System.....	234,000	313,673	—	—	1,100	1,475
Northern Ontario Properties....	317,100	425,067	300	402	—	—
Totals, Resources.....	2,035,250	2,728,217	202,300	271,180	704,200	943,968

¹ Dependable peak capacity—the amount of power subject to periodic change as equipment and water conditions vary, which the source is expected to be able to supply at the time of the system's peak demand. For the Commission-owned or -operated generating stations, it is presumed that all units are available and that the supply of water is normal. Contractual stipulations govern the capacities of sources of purchased power.

20.—Summary of Development Program of The Hydro-Electric Power Commission of Ontario (1945 to 1953), as at Dec. 31, 1951

System and Development	In Service	Dependable Peak Capacity
		kw.
Southern Ontario System—		
DeCew Falls (extension)—Niagara Region...	September 1947.....	57,000
Stewartville—Madawaska River.....	September 1948.....	63,000
Additional power purchase contract—Polymer Corporation.....	November 1948.....	22,500
Emergency fuel-electric units.....	January 1949—April 1950.....	63,000 ¹
Des Joachims—Ottawa River.....	July 1950—February 1951.....	380,000
Chenaux—Ottawa River.....	November 1950—September 1951.....	120,000
Richard L. Hearn—Toronto.....	October 1951.....	(88,000)
January 1952—February 1953.....	(288,000)	376,000 ²
J. Clark Keith—Windsor.....	November 1951.....	(66,000)
January 1952—November 1953.....	(198,000)	264,000 ³
Otto Holden—Ottawa River.....	January 1952—November 1952.....	204,000
Sir Adam Beck-Niagara No. 2—Niagara River.....	1954-1955.....	525,000 ³
Thunder Bay System—		
Aguasabon—Aguasabon River.....	October 1948.....	40,000
Pine Portage—Nipigon River.....	July 1950.....	60,000
Northern Ontario Properties—		
Ear Falls (Extension)—English River.....	June 1948.....	6,000
George W. Rayner—Mississagi River.....	July 1950.....	42,000

¹ Including 10,000 kw. not available October-December.
after conversion of first and third units to 60-cycle operation, 400,000 kw.

² Installed capacity of generating station

³ Installed capacity.

21.—Growth of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1941-49, and Dec. 31, 1950-51

NOTE.—Figures for the years 1931-40 will be found at p. 574 of the 1950 Year Book.

Year	Municipalities Served	Customers Served	Total Power Distributed ¹	Capital of Commission and Assets of Municipal Utilities
	No.	No.	kw.	\$
1941.....	900	771,681	1,724,915	481,929,585
1942.....	902	785,564	1,690,284	496,576,881
1943.....	903	797,258	1,738,781	496,142,306
1944.....	904	818,085	1,802,454	500,251,656
1945.....	922	869,712	1,939,505	539,148,757
1946.....	924	910,563	1,935,972	563,541,722
1947.....	944	952,853	2,003,139	623,106,873
1948.....	970	1,004,127	1,887,317	717,290,117
1949.....	1,017	1,078,221	2,150,231	898,274,752
1950 ²	1,132	1,187,117	2,714,565	1,073,562,037
1951.....	1,175	1,249,366	2,945,990	1,246,811,658

¹ Maximum 20-minute coincident peak loads (primary plus secondary) of each of the three systems operated by the Commission, given in terms of net output of the sources of supply to each system.

² Due to the change in the Commission's fiscal year to coincide with the calendar year, figures shown here for 1950 cover the 14 months ended Dec. 31, 1950.

22.—Distribution of Power to Systems of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1947-49, and Dec. 31, 1950-51

NOTE.—Peak load generated and purchased, primary and secondary, in terms of generation.

System	1947	1948	1949	1950 ¹	1951
	kw.	kw.	kw.	kw.	kw.
Southern Ontario System.....	1,684,269	1,542,975	1,743,973	2,210,929	2,425,909
Thunder Bay System.....	112,585	132,210	171,380	224,710	222,013
Northern Ontario Properties.....	206,285	212,132	234,878	278,926	298,068
Totals.....	2,003,139	1,887,317	2,150,231	2,714,565	2,945,990

¹ Due to the change in the Commission's fiscal year to coincide with the calendar year, figures shown here for 1950 cover the 14 months ended Dec. 31, 1950.

23.—Electrical Service to Rural Power Districts Operated by The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1947-49, and Dec. 31, 1950-51

Item	1947	1948	1949	1950 ¹	1951
Rural operating areas..... No.	92	97	96	103	103
Townships served..... "	473	497	540	624	669
Customers..... "	196,506	230,760	262,859	292,811	318,606
Primary distribution lines..... miles	24,374	29,532	33,127	34,793	38,198
Power supplied (maximum)..... kw.	145,854	169,439	202,073	234,752	271,354
Revenues from customers..... \$	8,451,058	9,762,049	11,370,166	18,908,343	20,163,439
Total expenses..... \$	8,360,570	9,763,736	13,346,962	19,117,406	20,475,980
Net surpluses..... \$	90,488	-1,687	-1,976,796	-209,063	-312,542
Capital invested..... \$	55,126,269	67,596,984	89,331,733	106,843,231	127,227,145
Provincial grants-in-aid..... \$	27,192,870	33,880,778	44,085,389	52,948,661	63,016,166

¹ Due to the change in the Commission's fiscal year to coincide with the calendar year, figures shown here for 1950 cover the 14 months ended Dec. 31, 1950.

Manitoba.—The Manitoba Power Commission was established in 1919 for the purpose of distributing electric energy, both wholesale and retail, throughout the Province, with the exception of the Greater Winnipeg area. The utility currently operates under authority of an Act respecting the Manitoba Power Commission (R.S.M. 1940, c. 166) and amendments.

The Commission's supply of electric energy for distribution is purchased from the Winnipeg Electric Company at various points, chiefly at or near the City of Winnipeg. Arrangements for the Commission's purchase of power are contained in the Seven Sisters Agreement of 1928 between the Province of Manitoba and the Winnipeg Electric Company. The Commission has gradually acquired practically all of the municipally owned and privately owned generating plants operating within its jurisdiction and has spread a network of transmission lines across the Province. All energy distributed is now generated by hydro power.

The Commission's program, started in the 1930's and designed to bring hydro-electric power at uniform service rates to all urban centres of 20,000 or over population, is now virtually complete and currently serves 419 such centres. In 1942, the Manitoba Electrification Enquiry Commission was appointed by the Provincial Government to study the feasibility of widespread farm electrification in the Province. It was concluded that, with the Manitoba Power Commission's network of transmission lines as a source of supply and with the economy in design of farm lines that had been worked out, it would be practicable to bring the benefits of hydro-electric power to over 90 p.c. of the farms in the Province, provided the farmers themselves were prepared to assist in certain organizational and operational matters. A test program undertaken in 1945 proved successful and thereafter the Commission conducted annual programs of farm electrification. Shortages of materials restricted the size of these programs until 1948 when the set goal of 5,000 farm connections was reached. The program has since continued on an area-coverage basis and the Commission now serves over 27,000 farms and has plans for further coverage.

Saskatchewan.—The Saskatchewan Power Corporation, established Feb. 1, 1949, and operating under the provisions of the Power Corporation Act 1950 (Statutes of Sask. 1950, c. 10), as amended, succeeds the Saskatchewan Power Commission which operated from Feb. 11, 1929, to Jan. 31, 1949. During the years 1929-49, the Commission purchased a number of generating plants and constructed and purchased transmission lines and also distribution systems in certain urban centres.

In 1945 it purchased the assets of Prairie Power Company Limited and in 1947 purchased the assets of Canadian Utilities Limited in Saskatchewan. It absorbed into its system the assets in Saskatchewan of Dominion Electric Power Limited, which for a time had been operated by the Commission as a wholly owned subsidiary.

The main functions of the Saskatchewan Power Corporation are the generation, transmission, distribution, sale and supply of electric energy and steam. It is also authorized to produce or purchase, and to transmit, distribute, sell and supply natural or manufactured gas, but as yet has not exercised its powers in relation to gas.

Particulars of the operations of the Saskatchewan Power Commission from 1929 to 1948 and of the operations of the Saskatchewan Power Corporation during 1949 are given in the 1951 Year Book and earlier editions.

At the end of 1951, the Corporation owned and operated 8,757 miles of transmission line and distribution systems at 537 urban centres. It also owned and operated steam-generating plants at Estevan, North Battleford, Prince Albert and Saskatoon with a total installed capacity of 76,950 kw., and diesel-generating plants at Assiniboia, Biggar, Canora, Davidson, Hudson Bay, Humboldt, Kindersley, Leader, Maple Creek, Meadow Lake, Melfort, Melville, Moosomin, Nipawin, Shaunavon, Shellbrook, Swift Current, Tisdale, Unity, Watrous, Wynyard and Yorkton, with a total installed capacity of 30,053 h.p. During 1950 and 1951, the Corporation purchased blocks of power from the City of Regina and the National Light and Power Company Limited, Moose Jaw. During the same years the Corporation sold electric energy in bulk to the Cities of North Battleford, Saskatoon and Swift Current, and to the Town of Battleford. The number of customers served by these municipalities was 21,223 at the end of 1951. All the other urban centres on the Corporation's system were supplied on a retail basis, the number of customers so served by the Corporation being 72,700. At the end of 1951, the Corporation purchased the distribution system owned by the City of North Battleford and now supplies that city and its inhabitants on a retail basis.

In 1950 and 1951 the Corporation installed additional capacity in its steam and diesel plants, and constructed a large mileage of transmission lines. The main additions to plant capacity were the installation of a 15,000-kw. turbo-generator in the Estevan plant, and a 1,200-h.p. gas-diesel unit in the Unity plant. The 69,000-volt lines constructed were: Prince Albert-Beatty-Melfort-Tisdale; Beatty-Watrous; Tisdale-Nipawin; and one line of 33,000 volts (Saskatoon-Perdue-Biggar-Rosetown) was built. The principal 24,000-volt lines constructed were: Montmartre-Kipling; Melville-Kelliher; Trossachs-Ogema-Bengough-Viceroy; Tisdale-Weeks; Plato-Kyle; Willow Bunch-Rockglen-Coronach; and Dodsland-Herschel.

The Power Corporation has continued its program of rural electrification under the provisions of the Rural Electrification Act 1949 as amended. The number of rural customers supplied by the Corporation was 2,608 at the end of 1949, 4,600 at the end of 1950, and 7,600 at the end of 1951.

The Cities of Regina and Weyburn, as well as certain towns and villages, own and operate their own municipal plants and distribution systems. In Moose Jaw and in a number of small towns and villages, local plants and distribution systems are owned and operated by private companies or individuals.

24.—Growth of the Saskatchewan Power Corporation (formerly Commission), 1942-51

NOTE.—Figures for the years 1929-1933 will be found at p. 499 of the 1947 Year Book; and for the years. 1934-1941, at p. 578 of the 1950 edition.

Year	Municipalities Served		Customers Served		Total Power Generated	Total Power Purchased	Capital
	In Bulk	Directly	In Bulk	Directly			
	No.	No.	No.	No.	kwh.	kwh.	\$
1942.....	4	139	15,413	11,450	70,084,762	2,100,225	8,617,455
1943.....	4	139	16,677	12,197	79,565,860	1,921,440	8,748,856
1944.....	4	143	15,982	12,989	85,118,625	1,808,586	8,939,920
1945.....	4	203	16,341	18,034	87,248,840	3,098,450	10,661,321
1946.....	4	211	17,481	20,654	88,111,619	12,050,544	11,841,658
1947.....	4	343	18,718	45,087	145,049,416	15,371,443	20,305,068
1948.....	4	375	19,772	51,237	165,671,184	21,163,121	23,280,528
1949.....	4	422	20,534	57,855	193,770,591	21,684,086	26,796,036
1950.....	4	453	20,761	63,600	212,945,978	22,980,678	33,101,168
1951.....	4	537	21,223	72,700	252,020,623	26,806,296	41,203,403

Control and regulatory powers regarding franchises for the supply of electric energy and the rates to be charged therefor are conferred upon the Local Government Board by Part III of the Public Utilities Companies Act (R.S.S. 1940, c. 118). Control and regulatory powers regarding the construction, extension and operation of generating plants, distribution systems and transmission lines are conferred upon the Saskatchewan Power Commission by the Power Commission Act 1950 (Statutes of Sask. 1950, c. 9).

Alberta.—Public ownership of power-generating and distributing systems in Alberta is confined to certain urban municipalities. The regulatory authority over privately owned systems is the Board of Public Utility Commissioners, which has jurisdiction over the distribution and sale of electricity. The Board has power to hold investigation upon complaint made either by a municipality or by a utility company and, following such investigation, may fix just and reasonable rates.

There are three private utility services in the Province: Calgary Power Limited, Canadian Utilities Limited, and Northland Utilities Limited. A synopsis of these services is given below.

Calgary Power Limited.—This Company has eight hydro-generating plants on the Bow River and its tributaries, west of Calgary. These plants are: Horseshoe Falls; Kananaskis Falls; Ghost River; Cascade; Barrier; Spray; Rundle and Three Sisters. At Dec. 31, 1951, the Company's total plant capacity was 206,550 horsepower. Barrier plant, completed in 1947, was the Company's first plant to be operated by remote control. Recently, Cascade, Three Sisters, Spray and Rundle plants were linked to a central control room at Kananaskis. The remaining plants will be remote-controlled as soon as the installations can be made. The Company has reservoirs at Lake Minnewanka (180,000 acre-feet), Interlakes (Kananaskis Lakes) (90,000 acre-feet), Spray Lakes (200,000 acre-feet), and forebay storage of 74,000 acre-feet at Ghost.

Power from these plants, together with that received under interchange agreements with the Cities of Lethbridge and Edmonton, is fed into a transmission network which supplies the entire electrical requirements of the Cities of Calgary and Red Deer and 235 smaller urban centres in central and southern Alberta. At Dec. 31, 1951, over 1,000 oil wells were being supplied with electric pumping service—

not to mention all the other loads directly related to the oil industry, such as gathering stations, refineries, pipe-line pumping, and the many large industrial plants recently located near Edmonton.

Calgary Power Limited transmission system, comprising over 4,100 miles of lines of all voltages, extends from Westlock in the north to Milk River in the south and from Macklin (Saskatchewan), Chauvin, Brooks and Taber in the east to Nordegg, Banff and Crowsnest Pass in the west. An eastern extension will soon be completed to link a new 30,000 kw. power plant at Medicine Hat with the system. The Cities of Calgary and Red Deer and the Towns of Ponoka, Macleod and Cardston are supplied on a wholesale basis and own their own distribution systems. All other points on the system are supplied on a retail basis. The Company has 3,529 miles of main transmission lines and 600 miles of distribution lines.

An extensive farm electrification program is in progress in Alberta and at Dec. 31, 1951, the Company was serving approximately 10,500 farms over 7,500 miles of the farmer-owned Rural Electrification Co-operative Association rural transmission lines. The program calls for the addition of from 2,500 to 3,000 farms each year for the next several years. Calgary Power does all the engineering, construction and operation of these co-operatives through a non-profit subsidiary—Farm Electric Services Limited—energy being supplied to the farm co-operative consumers at cost. Expenditures during the next five years for additional plant capacity, transmission lines and distribution systems will amount to an estimated \$50,000,000.

Canadian Utilities Limited.—Towns and villages northeast of Drumheller are supplied from a 13,500 kw. steam plant in that city by Canadian Utilities Limited, while towns and villages north and east of Vegreville are served from a new gas-fired 7,500 kw. steam plant at Vermilion. There are tie lines with the Calgary Power Limited system at Vermilion, Vegreville and Drumheller. This utility also serves the areas around Grande Prairie from a 2,300 h.p. diesel-engine plant located at that centre. The Company serves over 22,700 customers, in approximately 180 towns, villages and hamlets, including 48 Rural Electrification Associations in the Province, through a network of approximately 1,700 miles of transmission lines, and 1,375 miles of Rural Association lines.

In 1949, the Company embarked on a program of extending its lines to farmers on a co-operative basis. The system is constructed and operated at cost for the farmer.

Northland Utilities Limited.—This Company, with headquarters at Edmonton, supplies electric energy to 4,750 consumers in 25 northern communities. Diesel-generating plants are located at Jasper, Mayerthorpe, Athabaska, High Prairie, McLennan, Peace River, Lac La Biche, Manning, Fairview, Wildwood, and Hay River, N.W.T. Low-voltage transmission lines extending from these generating stations supply electricity to 200 farms and 14 villages. In addition, in 1948 the Company constructed a 665 kva. hydro plant on the Astoria River in Jasper National Park for the Department of Mines and Resources.

The Northland Utilities Limited also serves 1,000 consumers at Dawson Creek, B.C., with natural gas.

British Columbia.—The British Columbia Power Commission was appointed Apr. 17, 1945, under the provisions of the Electric Power Act, "an Act to provide for improving the availability and supply of electric power". Actual operations,

however, were commenced in August 1945 with the acquisition of electrical properties in several parts of the Province. The following statement shows the growth in the number of customers to April 1952:—

<i>Year Ended Mar. 31—</i>	<i>Services Acquired</i>	<i>Services Installed</i>	<i>Total Services for Period</i>	<i>Cumulative Services to End of Period</i>
	No.	No.	No.	No.
1946 (from August 1945).....	13,270	832	14,102	14,102
1947.....	7,151	1,786	8,937	23,039
1948.....	1,090	3,431	4,431	27,470
1949.....	831	3,318	4,149	31,619
1950.....	4,686	3,321	8,007	39,626
1951.....	473	4,075	4,548	44,174
1952.....	103	2,600	2,703	45,912
Sold June 1951.....	—325	—640	—965	
TOTALS.....	27,189	18,723	45,912	45,912

This growth has been accompanied by a corresponding increase in generating capacity which, at Mar. 31, 1946, totalled 8,285 kw. By March 1952 this capacity had been increased to 123,845 kw. The number of power districts rose in that period from 12 to 25 and there was also a large increase in the line mileage in operation.

In 1946 the Commission established a promotional rate structure designed to “permit and encourage the maximum use of power” as required by the Act. This rate structure has been extended as fast as increased plant capacity and distribution systems were installed to take care of the growth in load anticipated through its introduction. By February 1952, promotional rates had been adopted in all 25 operating power districts.

The Commission’s main development on Vancouver Island—the John Hart plant—is being enlarged for the third time. This plant, now comprising four turbines of 28,000 h.p. each, the equivalent electrical rating being 20,000 kw., is being augmented by the addition of the final group of two units of the same size. By the spring of 1953, this plant will have a capacity of 168,000 h.p. or 120,000 kw.

The John Hart development now serves, through Commission transmission and distribution systems, territory on Vancouver Island between Duncan and Campbell River, including the Comox Valley, Alberni, Lake Cowichan and Nanaimo. The B.C. Electric Railway Company Limited takes delivery of power at Nanaimo and transmits a large block for distribution in Victoria and environs, so that the John Hart development serves all main portions of Vancouver Island. The plant has brought two major industrial loads to the area with a third (at Duncan Bay) scheduled to commence operation in the summer of 1952.

On the mainland another major power project, the Whatshan Development on the west side of Lower Arrow Lake, has been completed. It is designed for an ultimate 66,000 h.p. capacity and the first two turbines of 16,500 h.p., generating 11,250 kw. each, began operation in May 1951. Power from this plant is transmitted 75 miles at 138,000 volts to Vernon in the Okanagan Valley. Through an inter-connection with Kamloops in the north and the West Kootenay Power and Light Company Limited lines to the south, a large area in the interior of the Province can be served by this project.

A third hydro-electric power development has been undertaken by the Commission. This is the Clowhom Falls plant, consisting initially of two 1,500 kw. generating units which began operation in May 1952. This construction will serve the Sechelt Peninsula, northwest of Vancouver.

Despite these large undertakings in the more populated areas of southwestern British Columbia, it is in the scattered and isolated communities of the Province that the people may have benefited most by the formation of the Commission. In less than seven years the diesel capacity of generating stations has increased from 880 to 12,295 kw., chiefly in these more remote and thinly populated areas.

25.—Growth of the British Columbia Power Commission, Years Ended Mar. 31, 1949-52

Item	1949	1950	1951	1952
Customers..... No.	31,619	39,626	44,174	45,912
Installed plant capacity..... kw.	55,670	97,640	100,350	123,845
Circuit Miles of Line—				
Transmission (high voltage)..... Miles	388	458	550	570
Distribution primaries..... "	1,389	1,958	2,393	2,541
Power Requirements—				
Generated..... kwh.	129,464,276	157,946,073	255,556,217	375,935,761
Purchased..... "	3,221,236	10,737,665	11,932,279	2,817,547
Totals, Power Requirements..... kwh.	132,685,512	168,683,738	267,488,496	378,753,308
Annual revenue..... \$	2,550,263	3,267,469	4,064,641	4,895,230
Average revenue per kwh. sold..... cts.	2.3	2.3	1.8	1.5
Capital Investment—				
Generation plant..... \$	10,634,242	18,081,014	18,384,774	24,748,127
Transmission plant..... \$	4,733,438	5,484,615	5,760,593	8,206,878
Distribution and general plants..... \$	5,612,301	7,843,076	9,945,223	12,359,770
Totals, Capital Investment..... \$	20,979,981	31,408,705	34,090,590	45,314,775

Sources of power for the year ended Mar. 31, 1952, were as follows:—

Source of Power	kwh.	p.c.
Hydro-electric energy.....	344,700,577	91.6
Diesel-electric energy.....	30,928,309	7.6
Steam-electric energy.....	306,875	0.1
Purchased power.....	2,817,547	0.7
TOTALS.....	378,753,308	100.0

The Northwest Territories and Yukon Territory.—The Northwest Territories Power Commission was created by an Act of Parliament in 1948 to bring electric power to points in the Northwest Territories where a need developed and where power could be provided on a self-sustaining basis. By legislation passed in 1949, the Act was extended to include Yukon Territory.

The Northwest Territories Power Commission has authority to construct and operate power plants as required in a territory having an area of over 1,500,000 sq. miles. The Commission is continually investigating power needs in this large area and studying reports on hydro-electric power sites that are available.

The Commission has in operation a hydro-electric power development on the Snare River some 94 miles northwest of Yellowknife, N.W.T. Power has been supplied from this plant since the autumn of 1948 to the mines in the Yellowknife area and, in the summer of 1949, a transmission line connection was completed to augment the supply of power to the Town of Yellowknife.

A diesel-generating station and distribution system was put into operation at Fort Smith, N.W.T., in October 1950. This project supplies the various government establishments at Fort Smith, e.g., the Departments of Resources and Development, Transport, National Defence (R.C.C.S.), Health and Welfare, and Public Works as well as the Royal Canadian Mounted Police and private commercial consumers and residents of the settlement.

In 1951, construction was commenced on a Commission-owned hydro-electric development on the Mayo River, approximately six miles north of Mayo Landing, Yukon Territory. It is expected that this plant will be delivering power to the Keno Hill and Galena Hill mining areas and to the settlement of Mayo Landing in the autumn of 1952.

The Commission conducts investigations throughout the Northwest Territories and the Yukon Territory wherever requests are made for power installations or where the Commission considers investigations should be made.

The total capital investment of the Commission as at Dec. 31, 1951, was approximately \$6,000,000.

Section 3.—Total Development of Electric Power from All Available Sources

In Section 1 of this Chapter total water-power resources are given with the proportion that, so far, has been developed. Table 3 of that Section analyses the hydraulic turbine installation by the proportions in central electric stations, in pulp and paper mills, and in other industries. This is useful material, but it does not take into account electric power developed in central electric stations or in other industries from sources other than hydraulic.

Section 2 covers the central electric station industry including stations under the public ownership of provincial and municipal governments and those under private ownership. Neither of these Sections, however, gives a complete presentation of the total electric power developed in Canada. All the hydraulic energy developed is not converted to electric power: there are a number of water wheels and water turbines used for direct drive that are not geared to electric generators. On the other hand, certain central electric stations in the Atlantic Provinces, Ontario and the Prairie Provinces generate electricity from steam or internal combustion engines. It is the purpose of this Section to show the total electric power generated from all available sources. Most of the power comes, of course, from central electric stations, the figures having been given in Table 4 of Section 2, p. 546. The total kilowatt hours of electric power generated by central electric stations is divided into that generated from water power and that generated from thermal engines of all kinds

As shown in Table 26 total electric power generated by central electric stations in 1950 was 48,493,718,000 kwh. For a complete presentation, the power generated by manufacturing industries for their own use and the power generated by the

primary mining industry for use in its own operations must be added. There are a few other sources of electric energy included, such as electric railways which produced 12,764,200 kwh. in 1950. This production has been taken into the annual total shown in Table 26. There are numerous small lighting and power plants on farms, rural homes, summer resorts, stores, etc., where electricity from central electric stations is not available and for these no data are available. The following table gives available data separately and as a combined total. Of the total electric power generated in Canada in 1950, 88.1 p.c. is shown to have been developed in central electric stations and, of this, 3.9 p.c. was generated by thermal engines (*see* Table 4, Sect. 2), the remainder having been produced hydraulically. Of the 11.9 p.c. generated by industry for its own use, 11.4 p.c. was developed by the manufacturing industries and 0.5 p.c. by the mining industry.

26.—Total Power Generated by Central Electric Stations, Manufacturing and Mining Industries, 1941-50

NOTE.—Figures for the years 1927-40 will be found at p. 516 of the 1948-49 edition of the Year Book.

Year	Central Electric Stations		Manufacturing Industries		Mining Industries		Total ¹
	'000 kwh.	p.c.	'000 kwh.	p.c.	'000 kwh.	p.c.	
1941.....	33,317,663	91.3	2,840,841	7.8	299,119	0.8	36,479,140
1942.....	37,355,179	91.1	3,345,444	8.2	295,734	0.7	41,007,482
1943.....	40,479,593	92.1	3,211,610	7.3	248,848	0.6	43,951,190
1944.....	40,598,779	93.2	2,752,125	6.3	210,554	0.5	43,571,276
1945.....	40,130,054	93.9	2,362,260	5.5	201,765	0.5	42,720,374
1946.....	41,736,987	93.4	2,714,261	6.1	199,950	0.4	44,662,916
1947.....	43,424,799	92.1	3,467,535	7.4	269,412	0.6	47,174,384
1948.....	42,389,681	89.7	4,590,677	9.7	270,522	0.6	47,262,060
1949.....	44,418,573	87.8	5,898,390	11.7	263,835	0.5	50,592,990
1950.....	48,493,718	88.1	6,266,051	11.4	264,232	0.5	55,036,765

¹ Includes power generated by electric railways for their own use.

CHAPTER XIV.—THE FISHERIES

CONSPECTUS

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NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

The immense fishery resources of Canada are derived from the prolific sea-fishing waters of the North Pacific and North Atlantic, and from numerous lakes and rivers of the inland provinces. Canada ranks high in fishery production and leads the world in monetary returns from the export of fishery products. (See Chapter XXI for fisheries exports.)

Fishing is Canada's oldest industry and although its relative importance in the nation's economy has diminished through the years, the industry has shown considerable expansion and is still of paramount consequence in the coastal provinces and in the inland areas adjacent to waters where commercial fishing is pursued. Of particular importance is the fishing industry of Newfoundland where, from the standpoint of number of people directly employed in the catching and processing of fish and those indirectly affected, it ranks first among the industries. In Prince Edward Island and in Nova Scotia, fish-curing and packing is the leading manufacturing industry and in New Brunswick and British Columbia it ranks third.

An account of the Canadian Fishing Grounds is given in the 1951 Year Book, pp. 472-475.

Section 1.—Governments and the Fisheries

Subsection 1.—The Federal Government*

The British North America Act gave the Federal Government full legislative responsibility for the regulation of the coastal and the inland fisheries of Canada. Under the Act, laws are made for the protection, conservation and development of the fisheries throughout the country. The provinces, however, have property rights in the non-tidal fisheries and have been delegated certain administrative responsibilities in varying degree. Consequently, while all the regulations governing fishing are made by the Federal Government, the work of administering the fisheries (enforcing the different laws and regulations, inspecting fish products, issuing licences, etc.) is done in some cases by federal officers and in others by provincial officers, according to arrangements made with the different provinces and without duplication of staff.

* Revised in the Department of Fisheries, Ottawa.

Specifically, all tidal or sea fisheries, except those of Quebec, are administered by the Federal Department of Fisheries while the fresh-water or non-tidal fisheries, with some exceptions, are administered by the Provincial Departments. The exceptions are the Yukon and Northwest Territories, Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland where the fresh-water fisheries are federally administered.

The work required in the conservation, development and general regulation of the nation's coastal and fresh-water fisheries is performed by three agencies under the Minister of Fisheries:—

- (1) The Department of Fisheries proper, with headquarters at Ottawa and area offices under Chief Supervisors at Vancouver, Winnipeg, Halifax and St. John's.
- (2) The Fisheries Research Board of Canada, with headquarters at Ottawa and seven stations across Canada.
- (3) The Fisheries Prices Support Board, with headquarters at Ottawa.

The Department of Fisheries.—The chief responsibilities of the Department of Fisheries throughout Canada are, in brief, to conserve and develop Canada's primary fishery resources; to encourage the development of the fishing industry in the national economy; to inspect fish products, establish standards of quality and promote the optimum utilization of the resource; and to develop a proper public understanding of the resource and the industry.

The larger part of the Department's working force is stationed in the field in the four above-mentioned areas, and is comprised mainly of a protection staff and an inspection staff. The Protection Officers, including those on the Department's 64 patrol and protection vessels, are concerned with the enforcement of the conservation regulations under the Fisheries Act and other Acts designed to ensure a continuing maximum yield of fish. The Inspection Officers are responsible for the inspection of fish products and processing plants under the Fish Inspection Act and relevant sections of the Meat and Canned Foods Act.

The conservation program of the Department is carried out by the Conservation and Development Service. Protection officers not only enforce regulations pertaining to restricted areas, close seasons, limitations in location and types of gear, but they inspect spawning streams and keep them clear of obstructions. Engineers of this Service construct fishways to enable fish to by-pass dams. Hatcheries are maintained to restock waters where the fisheries are federally administered.

To ensure a high standard of quality, inspection of fish and fish products is carried out by the Inspection and Consumer Service. Fish inspection laboratories are maintained on the Atlantic and the Pacific Coasts. The Service also has a staff of home economists who operate a test kitchen at Ottawa and carry out demonstrations and lectures on methods of preparing and cooking fish and fish products.

Through the mediums of printed material, films, radio and exhibitions, the Information and Educational Service keeps the public informed on the various aspects of the industry and the work of the fisheries service with the object of developing a better understanding of the resource and those engaged in its exploitation. The Service works closely with the Conservation and Development Service in matters concerning conservation of fisheries, and with the Inspection and Consumer Service toward encouraging increased consumption of Canadian fish products in both North American and export markets.

The Markets and Economics Service, which has a staff of economists and market analysts, is responsible for bringing together a fund of factual information, through surveys and other means, on the primary fisheries and on the processing, transportation and distribution of fishery products. Such facts and their interpretation form the basis for development and other programs of the Department. In the marketing field continual study and interpretation is carried out on market trends in the foreign and the domestic fields. In co-operation with the Department of Trade and Commerce and its Trade Commissioner Service, work is being done on the development and extension of export markets for Canadian fish.

In addition to providing these regular services, the Department assists the commercial fishing industry in several special ways. For the purpose of promoting efficient primary fishing operations and improving the marketing of fishery products, assistance is provided for the construction of draggers and long-liners and for bait-freezing and storage facilities on the Atlantic Coast. Restrictions against trawlers have been eased to permit the licensing of new trawlers built in Canada or the United Kingdom. For each new trawler built in Canada, the owner is eligible for a licence to operate a used trawler imported from either the United Kingdom or the United States and registered in Canada after payment of duty. A bona fide applicant wanting only one trawler can import a used one from the United Kingdom without having to lay down a new keel in Canada.

The Department also provides assistance in the education of fishermen by making payments to educational institutions that have agreed to carry out adult educational work among fishermen.

The Fisheries Research Board.—Under the Fisheries Research Board of Canada Act, 1937 (c. 37), the Board has charge of all federal fishery research stations in Canada. It consists of 15 members appointed for five-year terms by the Minister of Fisheries. Nine of the members are scientists from universities or other institutions engaged in research work bearing on fishery problems; four members represent the fishing industry; and two members are from the Department of Fisheries.

The general types of work of the Board are biological and technological and are carried out at seven stations: the Biological Station at St. Andrews, N.B., with its substation at Ellerslie, P.E.I.; the Pacific Biological Station, Nanaimo, B.C.; the Central Fisheries Research Station, Winnipeg, Man.; the Newfoundland Fisheries Research Station, St. John's, Nfld.; the Atlantic Fisheries Experimental Station, Halifax, N.S.; the Pacific Fisheries Experimental Station, Vancouver, B.C.; and the Gaspé Fisheries Experimental Station at Grande Rivière, Que.

Scientific investigations are an important part of the development of the commercial fishing industry and provide the basis for conservation measures put into effect by the Department. Almost all the principal stocks of commercial fish are under observation by the Board's biologists. Many species, such as Pacific salmon, Atlantic salmon, Atlantic groundfish, lobster, herring, albacore, whitefish, whales, oysters and clams, are being studied intensively. The studies provide knowledge of the life history, growth rate, reproduction, distribution, enemies, diseases, etc., of the fishes, shellfish and sea mammals. Special investigations are undertaken as problems arise. A few years ago the Board conducted a survey of the fisheries resources of the Northwest Territories and, at present, it is exploring the fisheries resources of Canada's Eastern Arctic.

Fundamentally, the object of the Board's technological investigations is to eliminate waste in the fishing industry. To attain this objective it is necessary to utilize not only all fishery products that come out of the waters but to put those products to the best possible use in the light of current knowledge. The Board's knowledge is continually expanding through basic and applied research and this is helping to bring about a wider distribution of fishery products, a higher level of quality in the products marketed, a better understanding of the use of fish in general nutrition and of fish by-products for food, medicinal and industrial purposes.

The Fisheries Prices Support Board.—Under the Fisheries Prices Support Act passed in 1944, this Board was set up in July 1947 to recommend, to the Government, price support measures when severe price declines occur. The Board functions under the direction of the Minister of Fisheries and consists of an Acting Chairman, who is a senior officer of the Department of Fisheries, and five members chosen from private and co-operative firms in the industry, representative of the various fish-producing regions of Canada.

The Board has authority to buy quality fishery products under prescribed conditions and to dispose of them by sale or otherwise, or to pay to producers the difference between a price prescribed by the Board and the average price the product actually commands. The Board has no power to control prices nor has it any jurisdiction over operations in the fishing industry or the fish trade.

Money necessary for dealings in fishery products is available to the Board from the Consolidated Revenue Fund to a maximum aggregate amount of \$25,000,000 but only on recommendation of the Federal Treasury Board and authorization of the Governor in Council. The most recent prices support action by the Board resulted from marketing problems in respect of Newfoundland salted codfish.

The Board maintains a small staff at Headquarters for those administrative and research activities essential to operation. The work of the staff is closely integrated with that of the Department's Markets and Economics Service and, where possible, all services required by the Board are carried out by Departmental personnel. The Board has carried out field surveys on market conditions and possibilities, and on factors affecting the income of fishermen in the various producing areas. It keeps the financial position of fishermen under continuous review and makes recommendations to the Government on the basis of the facts as it finds them. Special investigations are made when serious problems arise in particular areas.

International Fisheries Conservation.—Because fisheries regulation is sometimes needed on the high seas in international waters, international treaties have had to be made. Canada's obligations under a number of international fishery treaties with the United States and other countries are administered by the Department of Fisheries.

Canada and the United States for years have led the world in joint fisheries conservation development. Major examples of this joint effort are the International Fisheries Commission, concerned with the preservation of the halibut stocks of the North Pacific and the Bering Sea, and the International Pacific Salmon Fisheries Commission, concerned with the conservation and development of the sockeye

salmon of the Fraser River. Investigations carried out under the Commissions' auspices, subsequent regulation and limitation of catches and, in the case of salmon, the construction of fishways, appear to have been successful in arresting and reversing an earlier trend towards depletion of these fisheries. Another case of restoring a depleted marine resource by international agreement and action is that of the fur seals of the Pribilof Islands in the Bering Sea. Under the Provisional Fur Seal Agreement, Canada receives 20 p.c. of the fur-seal skins taken annually by the United States Government from the Pribilofs. Only surplus animals are killed and the herd, once reduced almost to extinction by uncontrolled slaughter, is now believed to consist of more than 3,000,000 seals.

In 1949, the Government of Canada became a signatory, along with ten other countries, to the International Northwest Atlantic Fisheries Convention which came into force in 1950. The work of the Commission established under this Convention concerns the scientific investigations of the fishery resources of the northwest Atlantic. The Commission has no regulatory powers but will make recommendations to the respective governments regarding measures that may be necessary for maintaining the stocks of fish that support the international fisheries in the Convention area. The first meeting of the Commission was held at Washington, D.C., in April 1951. At that time the Treaty had been ratified by Canada, Denmark, Iceland, the United Kingdom and the United States. Other signatories to the Treaty are France, Italy, Norway, Portugal and Spain. Temporary headquarters of the Commission is at the Fisheries Research Board Biological Station, St. Andrews, N.B.

A step towards international action in regulating the high seas fisheries of the northern Pacific Ocean was achieved in December 1951, when Canada, the United States and Japan conferred at Tokyo and reached an agreement on fisheries problems. A draft convention was drawn up and referred to the three Governments for acceptance but it has not as yet (November 1952) received final ratification. The Convention aims at providing the maximum sustained yield of the fishery resources of the northern Pacific non-territorial waters with each of the parties assuming obligations to encourage conservation measures. It provides also for the establishment of a commission representing the three parties. The commission will study the northern Pacific fisheries, determine the application of the treaty principles and will promote and co-ordinate the scientific studies necessary for ascertaining conservation programs.

Under existing principles of international law, all nations have an equal right to exploit the fishery resources of the high seas. Problems have arisen when attempts have been made to conserve certain resources and the Convention is the first attempt to meet these problems. By joint agreement, Canada, the United States and Japan are prepared to waive some of these international rights and, under certain conditions, to abstain from fishing stocks that are under conservation by one or more of the other parties. Halibut, salmon and herring off the British Columbia coast meet the conditions of the Convention and Japan has agreed to abstain from fishing these resources.

Canada is a member of the International Whaling Commission and was represented at the third annual meeting of the Commission in 1951 at Capetown, Union of South Africa. Canada is obligated to collect additional biological data. Whaling operations are carried out off Newfoundland and the British Columbia coast.

Subsection 2.—The Provincial Governments*

An outline of the work undertaken by each of the Provincial Governments in connection with administration of commercial and game fisheries is given in the following paragraphs.

Newfoundland.—The union of Newfoundland with Canada on Mar. 31, 1949, brought about a transfer of some responsibilities in fisheries administration. The Newfoundland Fisheries Board remained the agency of government in the supervision of salt-codfish marketing, but fish and plant inspection, operation of bait depots, etc., became the concern of the Federal Department of Fisheries. The Board, formerly responsible to the Government of Newfoundland through the Commissioner for Natural Resources, became responsible to the Minister of Fisheries for Canada.

The Provincial Government is concerned mainly with improvement and development in fishing and production methods and has conducted experiments in long-lining and deep-water trawling, in the construction of multi-purpose fishing craft and in the exploration of potential fishing grounds. Steps are being taken to secure more efficient use of fisheries salt. Loans have been made available to processors for the establishment or development of fishing fleets and processing plants, and to fishermen for the construction and purchase of modern vessels capable of greater variety of fishing operations and larger production.

In 1951, the Governments of Canada and Newfoundland established the Newfoundland Fisheries Development Committee, consisting of representatives of fishermen, processors and exporters, and of both Governments. The objective of this Committee is to establish the role of each sector of the industry and each government, jointly or severally, in the organization and development of the fisheries. Action has been taken by both Governments in certain matters considered as necessary preliminaries to an over-all program, such as an economic and sociological survey of fishing settlements, and the encouragement of the use of community, rather than individual stages and rooms by shore fishermen.

The inland waters of Newfoundland, which provide excellent sport fishing, are not commercially exploited to any significant degree. The lakes and ponds remain under the authority of the Natural Resources Branch of the provincial Department of Mines and Resources, but the rivers and streams—the resort of migratory fish such as salmon and sea trout—passed under federal jurisdiction as a consequence of the union. Matters of conservation and guardianship are, therefore, mainly or wholly the concern of the Federal Department of Fisheries, although to the extent to which they affect the ponds and lakes they are subject to provincial or joint action.

Prince Edward Island.—The major responsibility for aid to the fisheries of this Province is undertaken by the Federal Government. Prince Edward Island, however, has established a Department of Industry and Natural Resources which administers the commercial and game fisheries.

Consultations were held in 1950 with marine architects and fishing ports were visited along the Atlantic seaboard with a view to obtaining the best information on boats and gear most adaptable to the Province's coastal waters. These

*Prepared by the respective provincial departments responsible for fisheries administration.

studies resulted in the adoption of the 60-ft. Island Dragger. During the search for information on boats, much was learned of the possibility of adapting the drag-net principle to smaller boats and experiments were conducted to ascertain power requirements and general feasibility. The major part of the revenue of the commercial fishermen of the Province is provided by lobster, smelt and oyster catches.

The streams of the Province are, as a whole, mostly spring fed and fairly constant in flow, thus providing excellent spawning grounds and nurseries for game fish, of which speckled trout are by far the most important. With such favourable conditions for reproduction the problem is to increase the production of trout of a size attractive to anglers. Comprehensive biological investigations are being carried on by the Fisheries Research Board to attain this objective by determining the most efficient procedure in stocking, managing and cropping. The Province provides the sites for these investigations and the Conservation and Development Branch of the Federal Department of Fisheries builds the necessary dams and supplies the fish required for experimental purposes.

The angling pressure in this Province is continuing to increase but many of the fertile and highly productive ponds have disappeared. During 1951, the Department, with a view to readjusting this situation, has repaired dams and restored many ponds and thus opened to the public, subject to the prevailing fishery regulations, many angling areas.

Nova Scotia.—The basic responsibility for the administration of tidal and inland fisheries in Nova Scotia is undertaken by the Federal Government. The Province, however, supplements the activities of this authority through its Department of Trade and Industry. In practice a system of co-operative effort has been worked out between the two authorities with each free to carry out individual responsibilities and specific programs. Provincial activities fall into three sections: development, administration and research.

Development.—Development activities include engineering services, financial assistance to the fisheries industry generally, and educational services to the fishermen.

Engineering services are related to the design, construction and equipment of boats, vessels and fish-processing plants. A marine engineer is employed for these services and for the extension of consultant services to all persons interested in the industry. Financial assistance is extended, by way of loans, for the construction and modernization of fish-processing plants and to fishermen for the acquisition of boats and engines. Where the requirements of large new plants have exceeded the capacity of local authorities, the Department's assistance has included provision of utilities such as water lines and rail sidings and the operation of a bait freezer at Cheticamp.

Educational services extended to fishermen comprise instruction in basic navigation, rules of the road, and care and maintenance of marine engines by means of short courses at selected outports and a permanent school maintained at Lunenburg. This educational program is assisted by grants from Canadian Vocational Training, Federal Department of Labour, under the provisions of the Vocational Training Co-Ordination Act.

Administration.—The Nova Scotia Fisheries Act serves to supplement federal jurisdiction and is administered jointly by the Department of Trade and Industry and the Federal Department of Fisheries. The Act requires fish plants and

fish buyers to obtain annual licences issued by the Department of Trade and Industry only on the recommendation of inspectors of the Federal Department of Fisheries and the certification of the Department of National Health and Welfare as to compliance with standards of construction, operation and sanitation contained in federal regulations.

Information obtained from the licensing activities and other statistics supplied by the Federal Department of Fisheries enables the Department of Trade and Industry to handle commercial and other inquiries in respect of the fisheries industry and to issue informational publications, such as the *Nova Scotia Fisheries Year Book* and directories of fish-packers and processors.

Research.—Provincial fisheries research activities have been confined largely to the inland fisheries for trout and salmon. The Department of Trade and Industry has carried out a four-year program of water control on the LaHave River in the interests of salmon preservation and development; has undertaken experiments in fertilization of lakes and in partial poisoning of lakes to reduce the numbers of coarse fish in competition with trout for the available food supply; and has conducted some special studies of trout populations and salmon migrations.

New Brunswick.—The commercial fisheries of New Brunswick are under the jurisdiction of the Federal Department of Fisheries. Since 1945, a Fisheries Division has been in operation under the Provincial Department of Industry and Reconstruction, now the Department of Industry and Development. In 1946, a Fishermen's Loan Board was established to provide financial assistance to bona fide fishermen for the purchase of new boats and engines. Since its formation this Board has loaned over \$1,150,000 of which over \$700,000 has been recovered to date. It has modernized the deep-sea fishing fleet by the introduction of a most effective small dragger 25 units of which are operating in the area of the Gulf of St. Lawrence.

Quebec.—The Minister of Game and Fisheries administers both the sea and inland fisheries of Quebec. The Department is composed of two divisions; the Division of Maritime Fisheries and the Division of Fish and Game, the latter being charged with the administration of the inland fisheries.

Sea Fisheries.—Quebec is the only province administering its own sea fisheries. For the benefit of producers and fishermen, it provides a system of cold-storage plants for the freezing and preservation of fish. Since the erection of the first plant in 1932, the network has grown to 50 plants with a daily freezing capacity of 250 tons of fish and a storage capacity of 16,000,000 lb. These cold-storage plants also perform a valuable service to fishermen by providing them with frozen bait. In addition, the Department owns and maintains 115 snow houses where fish may be chilled before being sent to storage or filleting plants; 40 culling sheds; and three artificial drying plants where 6,000,000 lb. of fish may be processed annually.

The Department maintains a staff of inspectors, fish wardens, technicians and technologists for the administration of fishery legislation and the application of new techniques to the expansion of the industry. The central administration is located at Quebec City, with an office at Gaspé for the administration of cold-storage plants. Statistics are compiled by the Department of Trade and Commerce in co-operation with the inspectors of the Maritime Fisheries Division.

Fish inspection is carried out under federal and provincial legislation by provincial inspectors, who are vested with additional powers for export purposes by the Federal Government.

Educational work among the fishermen and producers is also conducted by the Department in order to teach the latest methods of fish preparation and obtain high quality products. The new Fisheries Training School at Grande Rivière gives to fishermen of all ages the opportunity of taking free theoretical and practical courses in fishery, while the Superior School of Fisheries at Ste. Anne-de-la-Pocatière trains technologists in a four-year course. The encouragement given to the co-operative associations of fishermen through the Social Economic Service of this same institution constitutes another phase of the work.

Another form of assistance is the maritime credit system whereby fishermen are enabled to obtain loans from credit unions for the purchase of boats and gear. The Department adheres to the federal-provincial agreement on the building of dragners (small trawlers) and long-liners and assumes the building costs on a five-year capital refunding plan.

The fish trade is being promoted by advertising campaigns in newspapers and magazines, cooking demonstrations, educational films and free distribution of fish recipes and publicity leaflets, as well as at fairs and exhibits.

Hydrographical research in the Gulf of St. Lawrence and the location of new fishing grounds as well as experiments of all kinds on sea-fish biology are being conducted by the Marine Biological Station at Grande Rivière and the two substations of the North Shore and Magdalen Islands. This research has brought into use new types of modern fishing vessels recommended to fishermen.

Inland Fisheries.—The Division of Fish and Game exercises jurisdiction over the inland waters. Protection of the fish and game is in the hands of 300 full-time wardens. Residents are required to purchase a licence for sport-fishing and hunting and the proceeds are applied to the improvement of fishing and hunting conditions. Commercial, non-resident, tourist and club sport-fishing licences are also issued.

Five hatcheries are maintained at strategic points throughout the Province: St. Faustin, Lachine, Baldwin's Mills, Tadoussac and Gaspé. These establishments distributed nearly 9,000,000 fry, fingerlings and older fish, during the year ended Mar. 31, 1950, the species being speckled trout, Atlantic salmon and grey trout.

The Department administers four parks or reserves in which excellent fishing can be found. The Gaspé and Laurentides Parks are renowned for their trout fishing. The Chibougamau Reserve and the La Vérendrye Park, situated on the height of land, are eminently suited to canoe trips, in search of pickerel, pike and grey or speckled trout. Four salmon streams, all under the jurisdiction of the Fish and Game Division, are open to anglers: the Romaine River, the St. Jean River, the Petite Cascapédia River and the Matane River.

The Department co-operates with sportsmen through a joint committee composed of departmental officials and the directors of the larger fish and game associations. The Committee studies the maintenance of satisfactory fishing and hunting conditions and other problems arising out of the ever-changing conditions of modern life and their effect on the wildlife of the Province.

The Biological Bureau of the University of Montreal and the big piscicultural laboratory at Quebec City, with its two stations for practical work, located in the Mont Tremblant and Laurentides Parks, study problems connected with marine life.

Ontario.—Prior to 1946, the fishery resources of Ontario were administered by the Ontario Department of Game and Fisheries. That Department has since been incorporated into the Ontario Department of Lands and Forests as the Division of Fish and Wildlife and, in dealing with fishery matters, operates under the authority of the Fisheries Act (Canada), the Special Fishery Regulations for the Province of Ontario, the Ontario Game and Fisheries Act and the Regulations connected therewith.

Commercial Fishing.—The commercial fishing industry in Ontario provides employment to about 4,000 persons directly and to many more indirectly, and produces an annual harvest of between 25,000,000 lb. and 35,000,000 lb. of fish. The landed value revenue to licensed fishermen for the production of fish was \$7,034,000 for the year ended Mar. 31, 1951.

The industry, although widely scattered throughout the Province, is centred chiefly on the Great Lakes, particularly Lake Erie which is noted for its whitefish, herring and blue pickerel. Lake Superior continues to be the leading producer of lake trout. Other principal species of fish taken commercially in Ontario are: lake trout, yellow pickerel, herring or ciscoes, sturgeon, pike, catfish (including bullheads), carp and suckers.

Many of the smaller inland lakes are commercially fished, especially those in the northwestern portion of Ontario and careful management of these lakes is essential to ensure continued production.

Fishing boats vary from small craft to 60-ft. tugs, and types of gear used also vary from the most common gill net, pound and trap nets, seines and baited hooks to small hand-operated seines and dip nets.

Recent Developments.—Modern fishing methods and equipment have rapidly entered the fisheries industry in Ontario in the past few years. Diesel-driven steel-hull tugs have replaced the steam-driven wooden tug. New aids to fishing methods have been developed, such as depth-sounding devices, radar, ship-to-shore and ship-to-ship communications, and a better knowledge of the fish and their movements has been established from biological research findings. Modern icing facilities and transportation methods also are in use, as are new types of fishing gear. Nylon gill net is replacing cotton and linen nets and a very efficient and economical trapnet is gradually replacing the pound-net in Lake Erie and other waters.

With the use of these up-to-date fishing methods and equipment in Ontario's fresh-water fishing industry, the administration and management, through excellent co-operation and understanding of the complex problems involved by both the Government and the fishermen, through their local associations and the Ontario Federation of Commercial Fishermen, are working out the best practices in the interest of all concerned and of the industry as a whole.

Angling.—In Ontario, with its estimated water area of 49,300 sq. miles, angling constitutes one of the most widely distributed recreations. There are 144 different kinds of fish in the Province, including such species as lake and speckled trout, yellow pickerel, black bass, pike and maskinonge.

Sport fishing may be considered one of the chief factors concerned with the increase and development of the tourist trade and, while it is difficult to measure the value of this resource, a revenue of \$1,450,180 for the year ended Mar. 31, 1950, was obtained from the sale of angling licences, mainly to non-residents as residents require a licence for Provincial Parks only.

In order to maintain Ontario's reputation for excellent game-fishing, the management of this renewable resource is a prime factor, and a well-trained field staff of conservation officers and biologists is located in the 22 forestry districts of the Province.

Fisheries Research.—In 1947, the South Bay Experiment, under an Advisory Committee composed of representatives of the Fisheries Research Board of Canada, the Ontario Government, the Ontario Federation of Commercial Fishermen, the Ontario Federation of Anglers and Hunters and the Northern Ontario Outfitters Association, was begun on Manitoulin Island in Lake Huron to determine the benefits to the yield of the more valuable fish by exerting equal fishing pressure on the less valuable or worthless fish.

The increase in the sea lamprey and the drastic drop in production of lake trout in recent years in Lake Huron (including Georgian Bay and North Channel) are believed by many authorities to be directly related and have led to considerable joint research by the Ontario Government and by Federal and State Governments in the United States. Co-operation is maintained in the exchange of biological findings and, where practicable and feasible, the results are applied in an attempt to control this menace.

Other fields of fishery research include those carried out at the Ontario Fisheries Research Laboratory in Algonquin Park and at the Southern Research Station at Maple which was established in 1948 by the Provincial Government in co-operation with the University of Toronto.

Established fish-management principles are applied by biologists in the various forestry districts. Their program includes such projects as biological surveys and investigations, bass harvesting, coarse fish removal, sea lamprey control, creel census studies, fish tagging and other related subjects.

Provincial Hatcheries.—In order to supplement natural restocking, Ontario has 28 hatcheries and rearing stations. Excellent results have been produced in the culture and distribution of the various species of both commercial and game fish. The distribution for the year ended Mar. 31, 1950, numbered 583,368,799, comprising whitefish, herring, pickerel, trout (including lake, speckled, brown and Kamloops), maskinonge, bass and ouananiche.

Two of the finest trout-rearing stations on the Continent are found in Ontario at Dorian, near Port Arthur and at Hill Lake, near Englehart.

Manitoba.—The commercial fisheries of Manitoba, where there are 26,789 sq. miles of lakes and rivers, yield an annual harvest of fish in excess of 30,000,000 lb. This huge catch is worth approximately \$5,000,000 annually and the greater part is shared by the commercial fishermen who number over 7,000. About 90 p.c. of the Manitoba fishery production is exported to the United States, assisting materially the national balance of trade. In recent years the main efforts of the industry have been directed toward improvement in quality. Adequate cold storage facilities are available in the large centres; freighting boats are equipped with mechanical refrigeration, packing sheds are provided with cooling rooms and fishermen are allowed an unlimited amount of crushed ice so that the catch may be placed in ice as soon as removed from the nets. During the winter fishing seasons the fish is rushed to railroad by modern rapid transportation, including aeroplane, bombardier-snowmobile and tractor trains. The filleting industry has expanded

significantly and much of the catch is now prepared ready to cook and attractively packed in cartons. Lakes producing whitefish are surveyed annually to ascertain the quality of fish therein. Catch limits on most of the commercially fished lakes are set and rigidly enforced but an experiment is now in progress in a commercially fished lake to improve quality by intensive fishing. In two of the larger summer fishing operations, individual catch limits were set and have been found satisfactory.

The Province of Manitoba operates four fish hatcheries and two spawn-taking camps on commercially fished lakes. In the Provincial Park areas one sport-fish hatchery is in operation and one egg-collecting camp. From these hatcheries 81,550,000 whitefish eyed eggs and fry were planted on natural spawning grounds in Lake St. Martin and Lake Winnipeg. In Lake Manitoba and Lake Winnipegosis 107,300,000 pickerel eyed eggs and fry were distributed. In 1951, 616,660 trout fingerlings from the Whiteshell Trout Hatchery were liberated in sport-fishing waters of the Whiteshell Provincial Park and in the Duck Mountain area and lakes north of The Pas. A program of introducing adult fish into lakes is being carried out. Emphasis is also being placed on the poisoning of lakes and restocking with rainbow trout.

Sport fishing in Manitoba is increasing in importance, judging by the annual demand for non-resident angling licences in summer, and for resident and non-resident angling licences in winter.

Saskatchewan.—The administration of fisheries in the Province of Saskatchewan comes under the Fisheries Branch of the Provincial Department of Natural Resources with its head office at Prince Albert. Most of the fisheries resources are concentrated in the northern half of the Province, where the lakes have always been a source of food to the fur trader, trapper, prospector and the Cree and Chipewyan Indians who inhabit the area, and also provide food and supplementary income to the settler and homesteader on the agricultural fringe.

The Province of Saskatchewan has 13,725 sq. miles of water and the principal species of fish include lake trout, whitefish, pickerel, northern pike, sturgeon, cisco, Arctic grayling, goldeye, mullet, perch and burbot.

There are approximately 110 commercially fished lakes in the Province. In the year ended Mar. 31, 1951, the total commercial production of fish of all species amounted to 8,731,292 lb. with a railhead value of \$1,360,114. Since 1945 the growth of the filleting industry has been of particular significance and 15 filleting plants have been established. Annual production of fillets is now over 1,000,000 lb. Total sales of fish in the Province in 1950-51 were 1,986,776 lb., which represents a considerable increase over the past number of years. The fishery resources are also important to domestic fishermen and to mink ranchers in the Province. In 1950-51, 65 fur-farm fishing licences were issued and a total of 25,774 mink were fed under these licences; 637 domestic licences and 1,463 free licences to Indians were also issued.

There has been marked development recently in sport fishing. For the fiscal year 1950-51 there were 33,336 resident and 5,366 non-resident angling licences sold, compared with 6,000 resident and 1,500 non-resident licences sold in 1945. The recreational value of sport fishing in the Province has a great potential.

The main endeavour in the fish cultural activities in the Province in recent years has been to extend the range of the Arctic grayling species from the Far North into the Churchill River area, and the introduction of Eastern brook

trout and certain warm water species into areas where preliminary study seems to indicate that the environment was suitable. To a large extent the indiscriminate planting of fish has been discontinued. A fish hatchery is operated at Fort Qu'Appelle for the hatching-out of pickerel, rainbow, brown and lake trout, and two experimental ponds have been built. The purpose of these ponds is to study, under controlled conditions, the introduction of warm-water species from the United States. An experimental hatchery has been established at Lac la Ronge, where Arctic grayling and lake trout eggs have been hatched. An Arctic grayling spawn-camp has also been established in the Fond-du-Lac River, near Black Lake and a pickerel spawn-camp is located on the Montreal River, near Lac la Ronge.

The management of the provincial water areas has been placed on a scientific basis. In 1947 a large-scale biological program was undertaken and more than 100 water areas have since been studied. The main emphasis has been on the study of productivity of the various water areas as well as the inter-relationship of the species and life histories. In so far as known facts will permit, the management of the various lakes has been placed on a sustained-yield basis. Experiments are in progress on the introduction of non-native species into suitable water areas. Where sport-fishing pressure has increased, such as on Lac la Ronge, Last Mountain Lake and Amisk Lake, a creel census has been established and the annual harvest is recorded. A Fisheries Laboratory was established in 1949 at the University of Saskatchewan and a permanent biologist was added to the staff. Approximately 12 graduate and undergraduate biological students of the University are employed each summer on biological surveys.

Progress has also been made on technological research. At Prince Albert a pilot plant was established where experimental smoking and canning is conducted. As a result of this research work, the sales of smoked fish in the Province has increased very considerably. A Research Committee was established at the University of Saskatchewan to study certain aspects of the canning of inland fish, particularly the problem of the muddy flavour which appears to be present in the summer-caught fish from Last Mountain and Primrose Lakes.

The Fisheries Branch has conducted a program of education designed to acquaint people of the Province with the importance of scientific research and the necessity of certain regulations governing the administration of fisheries. Under the scientific program, three 16 mm. colour and sound films have been made on sport fishing during the past three years.

Alberta.—Commercial and game fishing are administered by the Fisheries Branch of the Department of Lands and Forests.

Regulations under the Fishery Act (Alberta) designed for improvement in the packing, handling, processing, storage and quality of commercial fish have been well received and supported by the Alberta industry. In line with a policy for producing good-quality fish, lakes in which whitefish are infected with the pike tapeworm and do not meet the quality standard have been closed to commercial fishing.

Biological surveys of many lakes and streams over the past ten years have provided an opportunity to observe the result of past management policies. It was found that the classical tenets of trout-stream management, including close seasons, legal minimum, feeder stream closure, and hatchery plants, were inadequate or incorrect. A new management plan featuring the 'fallowing' of smaller tributary

streams, abolition of the legal size minimum, except in the case of lake trout, and a continuous open season on large streams and rivers, is being conducted. In addition, there is no close-season angling for pike, pickerel and perch. Trout rearing stations and a provincial trout hatchery support trout stream populations whenever required in cases of natural disaster, severe winter kill, introduction of new species or areas that have no spawning grounds.

A long-term experiment to test the effectiveness of the Canyon Creek whitefish hatchery was begun in 1941 by planting "eyed" eggs in a series of lakes in alternate years. The evidence gathered from a series of five lakes, 12 to 462 sq. miles in area indicated that the hatchery-supported year classes were no stronger than those not supported. Observations on the efficiency of natural reproduction indicated that about 10 p.c. of the eggs survive to become fry, which is sufficient to produce about one hundred times the number of adult fish a lake can support. Thus, although eyed eggs introduced by the hatchery also survived and produced fry, as evidenced by the successful re-stocking of several lakes formerly without whitefish, natural reproduction was found to be sufficient and can provide more than additional stock from the hatchery and thus, would not change the ultimate result. The whitefish hatchery was, therefore, closed.

British Columbia.—The Provincial Department of Fisheries was organized in 1901-02 and shortly became very active in fish-cultural work, building and operating fish hatcheries and instituting scientific research into various fishery problems.

Broadly speaking, the administrative and regulative jurisdiction over the fisheries in British Columbia rests with the Federal authority. When British Columbia entered Confederation in 1871, the Government of Canada undertook to protect, conserve and promote the fisheries of the Province, and one of the important functions of the Provincial Department of Fisheries is to observe these aspects and to keep the Provincial Government informed through the appropriate Minister.

The ownership of the fisheries in the non-tidal waters is vested in the Crown, in the right of the Province, as are the shell-fisheries, such as oyster-fishing and clam-fishing in the tidal waters. The authority to administer and regulate these fisheries is vested in the Province, although the regulations covering them are made under federal Order in Council on the advice and recommendation of the Province.

The Provincial Department of Fisheries is charged with the administration of the Fisheries Act and with such other duties as may be assigned to it by the Lieutenant-Governor in Council. The Act provides for the taxation of the fisheries and, under civil and property rights, for the regulation and control of the various fish-processing plants under a system of licensing. Provision is also made in the Provincial Fisheries Act for the settlement by arbitration of disputes regarding fish prices that may arise between the fishermen and operators of the various licensed plants. The administration of the Act involves the collection of revenue and the supervision of plant operations in conformity with regulations made under the Act. The collection and publication of certain statistics and other pertinent data relative to the industry are also the responsibility of the Provincial Department of Fisheries.

Net-fishing in the non-tidal waters of the Province, including commercial fishing, is regulated and administered by the Provincial Department of Fisheries, while authority for regulation of the game fisheries in the non-tidal waters is vested

in the Game Commission, a branch of the Provincial Government administration. The Game Commission operates a number of trout hatcheries and egg-taking stations for re-stocking purposes.

The harvesting of marine plants of commercial importance in British Columbia, including the kelps, has recently been placed under the Provincial Department of Fisheries for regulation and control. Some research has already been done on a few of the more important species and more will be undertaken as required.

The Provincial Department of Fisheries has established a marine laboratory at Ladysmith, on Vancouver Island, for the purpose of conducting biological research into those species over which the Province has control, principally oysters, clams, and other forms of shell-fish as well as marine plants. This research is conducted with the object of encouraging the industry to produce better products more economically and of enabling the Department to regulate the various species so that maximum exploitation may be obtained on a sustained yield basis. The Department co-operates closely with the research work done by the Fisheries Research Board of Canada, particularly on the Pacific Coast.

Section 2.—Fishery Statistics*

Subsection 1.—Primary Production

The commercial fisheries of Canada (exclusive of the Province of Newfoundland) yielded \$151,982,000 in marketed value in 1950, an increase of nearly 16 p.c. over the 1949 figure of \$131,138,000. Although the total quantity of fish landed in 1950 reached a new peak of 1,491,222,000 lb., 4 p.c. higher than the previous record of 1,431,660,000 lb. in 1948, the increase in marketed value was due mainly to higher average selling prices for many species and the development of those products that command higher prices, particularly in foreign markets.

The data for Newfoundland are excluded from the following tables as no attempt was made to collect the comparable information. Steps were taken in 1952 to collect the principal statistics from all the important fish-processing firms in that Province and these data will be included in the tables for 1951.

* Revised in the Fisheries Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

1.—Marketed Values of All Products of the Fisheries, 1870-1950

Year	Value	Year	Value	Year	Value	Year	Value
	\$'000		\$'000		\$'000		\$'000
1870.....	6,577	1920.....	49,241	1933.....	27,497	1942.....	75,117
1875.....	10,350	1925.....	47,942	1934.....	34,022	1943.....	85,595
1880.....	14,500	1926.....	56,361	1935.....	34,428	1944.....	89,440
1885.....	17,723	1927.....	49,124	1936.....	39,165	1945.....	113,871
1890.....	17,715	1928.....	55,051	1937.....	38,976	1946.....	123,125
1895.....	20,199	1929.....	53,519	1938.....	40,493	1947.....	123,900
1900.....	21,558	1930.....	47,804	1939.....	40,076	1948.....	139,749
1905.....	29,480	1931.....	30,517	1940.....	45,119	1949 ¹	131,138
1910.....	29,965	1932.....	25,957	1941.....	62,259	1950 ¹	151,982
1915.....	35,861						

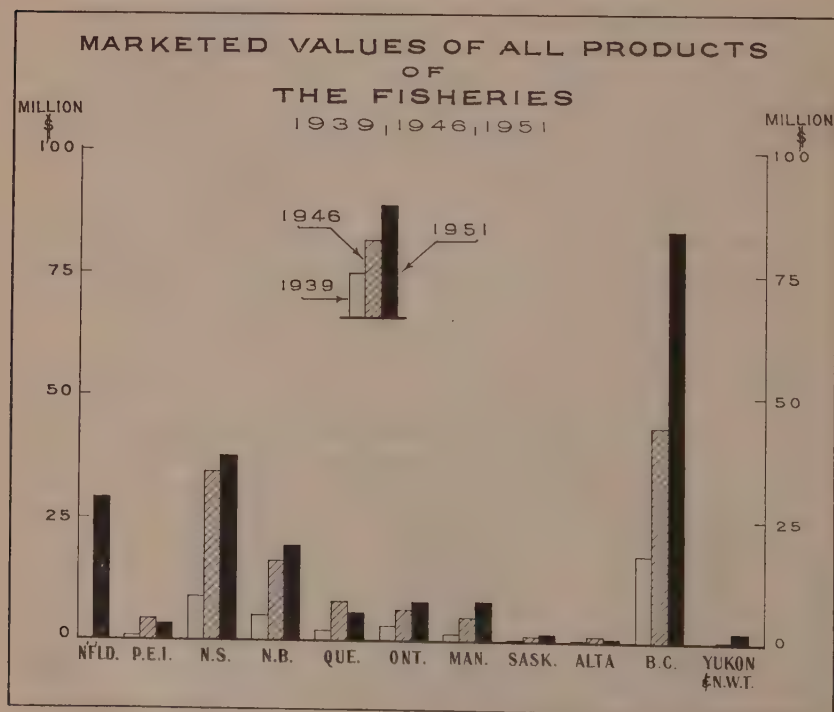
¹ Newfoundland figures not included.

The three leading provinces, by marketed value of fisheries products, accounted for 82 p.c. of the total for Canada in 1950; British Columbia's share was 45 p.c., a substantial increase over previous years, followed by Nova Scotia with 25 p.c. and New Brunswick with 12 p.c.

2.—Marketed Values of All Products of the Fisheries, by Provinces, 1947-51

Province or Territory	1947		1948		1949		1950		1951 ¹	
	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.
Newfoundland.....	...	...	...	...	...	...	...	...	29,000	14
Prince Edward Island.....	2,897	2	3,634	3	2,705	2	3,321	2	3,213	2
Nova Scotia.....	26,659	22	36,091	26	35,040	27	38,165	25	37,500	19
New Brunswick.....	17,132	14	20,122	14	17,428	13	18,053	12	19,320	10
Quebec.....	5,317	4	5,943	4	5,112	4	5,563	4	5,700	3
Ontario.....	5,404	4	6,394	5	6,184	5	7,034	5	8,000	4
Manitoba.....	5,329	4	5,415	4	4,800	4	6,600	4	8,000	4
Saskatchewan.....	1,171	1	1,282	1	1,026	1	1,360	1	1,500	1
Alberta.....	857	1	636	...	562	...	788	...	862	...
British Columbia.....	58,596	48	58,704	42	56,120	42	68,821	45	83,813	42
Yukon and Northwest Territories.....	538	...	1,528 ¹	1	2,161 ¹	2	2,297 ¹	2	2,262 ¹	1
Grand Totals.....	123,900	100	139,749	100	131,138	100	151,982	100	199,170	100
Totals, Sea Fish.....	110,274	89	123,991	89	115,921	88	133,445	88	177,996	89
Totals, Inland Fish.....	13,626	11	15,758	11	15,217	12	18,537	12	21,174	11

¹ Northwest Territories only.



3.—Quantities of Sea and Inland Fish Landed, by Provinces, 1946-50

NOTE.—Figures for the years 1918-45 are given at p. 432 of the 1947 Year Book.

Province or Territory	1946	1947	1948	1949 ¹	1950 ¹
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Prince Edward Island.....	35,117	31,682	30,682	27,525	29,225
Nova Scotia.....	417,663	324,136	376,609	364,332	378,484
New Brunswick.....	222,076	216,740	225,317	189,235	239,671
Quebec.....	127,163	96,354	101,414	106,114	117,459
Ontario.....	32,997	24,919	29,101	34,060	32,754
Manitoba.....	28,696	29,939	31,529	29,503	31,468
Saskatchewan.....	7,797	8,020	8,076	7,473	7,067
Alberta.....	11,070	9,899	7,224	6,302	7,067
British Columbia.....	429,388	475,630	613,903	546,312	638,497
Yukon and Northwest Territories.....	6,667	3,516	7,805 ²	9,101 ²	7,866 ²
Grand Totals.....	1,318,634	1,220,835	1,431,660	1,319,957	1,491,222
Totals, Sea Fish.....	1,227,359	1,141,256	1,344,132	1,229,749	1,399,262
Totals, Inland Fish.....	91,275	79,579	87,528	90,208	91,960

¹ Newfoundland figures not available.² Northwest Territories only.

In 1950, salmon retained the position it has held for more than fifty years as the leading fish, on the basis of marketed value; cod maintained the second place while lobsters took over third position from herring. Notable advances in order of value were shown by halibut, clams, blue pickerel and plaice, while grayfish dropped completely out of contention in 1950.

Table 4 shows the quantities landed (primary products only) in thousands of pounds, and values marketed (primary and secondary products) in thousands of dollars, of the main species of the commercial fisheries. Minor items, and secondary products not specifically derived from one particular kind of fish, are grouped in the item "Other".

4.—Quantities Landed and Values of All Marketed Products of the Chief Commercial Fisheries, 1946-50

NOTE.—The quantity landed excludes the weight of livers, but the value of liver products is included in the value for the species concerned.

Item	1946	1947	1948	1949 ¹	1950 ¹	Increase or Decrease 1950 compared with 1949
Salmon.....'000 lb. \$'000	151,548 25,230	164,868 36,278	147,678 37,929	149,744 37,278	186,944 49,929	+37,200 +12,651
Cod.....'000 lb. \$'000	326,657 21,742	232,711 14,467	257,793 18,802	249,291 17,004	255,729 17,242	+6,438 +238
Lobsters.....'000 lb. \$'000	38,309 14,504	31,884 10,751	35,647 13,958	38,205 14,105	44,685 16,260	+6,480 +2,155
Herring.....'000 lb. \$'000	373,573 17,344	398,461 17,951	552,387 15,868	470,370 14,798	561,606 14,706	+91,236 -92
Halibut.....'000 lb. \$'000	19,460 4,402	26,037 6,532	21,019 5,397	22,214 5,690	29,288 8,442	+7,074 +2,752
Whitefish.....'000 lb. \$'000	19,200 4,045	16,023 3,562	19,909 4,989	22,509 5,690	24,776 7,057	+2,267 +1,367

¹ Newfoundland figures not available.

4.—Quantities Landed and Values of All Marketed Products of the Chief Commercial Fisheries, 1946-50—concluded

Item	1946	1947	1948	1949 ¹	1950 ¹	Increase or Decrease 1950 Compared with 1949
Sardines.....'000 lb. \$'000	100,441 4,210	101,640 6,617	92,535 7,248	62,097 4,438	68,092 4,981	+5,995 +543
Haddock.....'000 lb. \$'000	34,738 2,468	31,558 2,479	56,789 4,536	46,580 3,769	47,319 4,246	+739 +477
Pickeral (doré).....'000 lb. \$'000	13,754 3,149	14,463 3,519	15,980 3,742	13,535 2,850	13,877 3,638	+342 +788
Mackerel.....'000 lb. \$'000	29,518 2,147	26,263 1,719	25,876 2,252	33,523 2,518	27,120 2,192	-6,403 -326
Lake trout.....'000 lb. \$'000	7,342 1,683	4,858 1,222	5,492 1,644	6,149 1,806	5,657 1,682	-492 -124
Clams.....'000 lb. \$'000	20,327 1,061	24,163 1,211	16,554 961	25,826 1,386	27,964 1,660	+2,138 +274
Blue pickeral.....'000 lb. \$'000	1,972 398	1,753 390	5,868 991	9,831 998	8,665 1,559	-1,166 +561
Pollock.....'000 lb. \$'000	28,280 1,263	20,860 835	24,033 1,648	18,583 1,284	28,984 1,363	+10,401 +79
Smelts.....'000 lb. \$'000	5,452 987	5,545 1,239	7,988 1,599	6,876 1,212	7,154 1,317	+278 +105
Hake.....'000 lb. \$'000	25,883 1,602	22,426 1,268	30,636 1,644	26,578 1,522	24,789 1,260	-1,789 -262
Saugers.....'000 lb. \$'000	4,948 895	4,286 880	4,810 732	7,658 1,032	5,464 1,196	-2,194 +164
Soles.....'000 lb. \$'000	9,563 848	6,105 515	12,854 1,171	6,964 580	10,471 914	+3,507 +334
Tuna.....'000 lb. \$'000	2,252 433	2,504 588	2,956 1,224	3,190 879	2,907 859	-283 -20
Plaice.....'000 lb. \$'000	2,833 160	1,667 123	4,269 253	3,784 225	9,938 834	+6,154 +609
Oysters..... bbl. \$'000	66,652 708	64,559 715	74,144 859	77,810 876	78,801 830	+991 -46
Swordfish.....'000 lb. \$'000	2,776 1,230	1,792 845	2,363 1,047	2,237 805	2,156 821	-81 +16
Alewives.....'000 lb. \$'000	17,201 654	11,775 457	17,255 679	17,002 693	20,917 712	+3,915 +19
Pike.....'000 lb. \$'000	4,749 495	6,008 611	6,780 717	6,673 541	6,122 688	-551 +147
Perch.....'000 lb. \$'000	4,499 733	3,875 688	3,390 467	3,406 473	3,430 619	+24 +146
Ling cod.....'000 lb. \$'000	7,383 1,065	3,875 597	6,586 879	7,263 871	4,638 523	-2,625 -348
Tullibee.....'000 lb. \$'000	10,479 447	12,653 785	10,805 903	6,199 346	7,838 453	+1,639 +107
Scallops..... gal. \$'000	87,897 541	93,173 576	87,067 501	43,650 217	76,966 424	+33,316 +207
Other..... \$'000	6,631	6,480	7,186	7,252	5,575	-1,677
Total Values..... \$'000	121,125	123,900	139,826	131,138	151,982	+20,844

¹ Newfoundland figures not available.

The value of the equipment used in primary operations of the commercial fisheries in 1950 increased by \$10,700,000 over the 1949 figure. A rise in the total estimated value of craft of all types, especially vessels, accounted for a good proportion of the increase. Of the total investment in the agencies of primary production, 86 p.c. was employed by the sea fisheries.

5.—Capital Investment in Sea and Inland Fisheries, 1949 and 1950

Kind of Equipment	1949 ¹		1950 ¹	
	No.	\$'000	No.	\$'000
Sea Fisheries—				
Steam trawlers and vessels.....	6	975	5	775
Draggers.....	128	3,045	138	3,905
Vessels—gasoline, diesel and sail.....	2,009	17,776	2,089	22,175
Boats—gasoline, diesel, sail and row.....	28,163	16,151	27,858	17,877
Packers, carrying boats and scows.....	1,209	2,251	1,183	2,234
Herring nets.....	45,161	1,137	44,938	1,148
Mackerel nets.....	28,118	753	29,014	794
Salmon nets, traps and seines.....	14,947	3,949	15,459	4,344
Smelt nets.....	16,491	588	16,226	605
Other nets, weirs and seines.....	6,306	2,792	6,678	2,873
Tubs of trawl, skates of gear, hand lines.....	92,638	1,384	87,882	1,760
Lobster traps and pounds.....	2,354,279	5,968	1,910,316	6,526
Other gear.....	...	268	...	337
Premises—piers, wharves, freezers, ice-houses, small fish- and smoke-houses.....	7,887	2,865	7,698	3,471
Total Values, Sea Fisheries Equipment.....	...	59,902	...	68,824
Inland Fisheries—				
Fish carriers and tugs.....	157	1,631	207	1,731
Boats (gasoline and diesel), skiffs, canoes.....	6,591	2,055	7,119	2,343
Gill nets.....	...	3,400	...	4,505
Other nets, weirs and seines.....	7,454	1,164	7,033	1,196
Other gear.....	...	316	...	315
Premises — piers, wharves, freezers, ice-houses, small fish- and smoke-houses.....	2,019	1,126	1,909	1,359
Total Values, Inland Fisheries Equipment.....	...	9,692	...	11,449
Grand Totals.....	...	69,594	...	80,273

¹ Figures for Newfoundland not available.

6.—Persons Employed in the Primary Fishing Industry, 1946, 1949 and 1950

Item	Sea Fisheries			Inland Fisheries		
	1946	1949 ¹	1950 ¹	1946	1949 ¹	1950 ¹
	No.	No.	No.	No.	No.	No.
Persons Employed in—						
Steam trawlers and vessels.....	162	132	112	—	—	—
Draggers.....	439	612	722	—	—	—
Vessels.....	7,809	9,235	8,769	10,402	9,459	10,974
Boats.....	38,097	33,953	35,427			
Packers, carrying boats and scows....	693	681	617	117	130	128
Fishing, not in boats.....	4,761	2,982	3,000	11,034	7,859	7,303
Totals.....	51,961	47,595	48,647	21,553	17,448	18,405

¹ Figures for Newfoundland not available.

Subsection 2.—The Fish-Processing Industry

The products of the fish-processing industry were valued at \$118,968,000 in 1950, an increase of \$7,049,000 over the 1949 figure. A total of 597 firms were in operation in Canada (not including Newfoundland); most of these establishments were engaged in at least two or more of the different phases of processing which include canning, curing, freezing, reduction and selling of fresh fish.

7.—Summary Statistics of Fish-Processing Establishments, 1946-50

Item		1946	1947	1948	1949 ¹	1950 ¹
Establishments—						
Prince Edward Island.....	No.	68	68	65	62	57
Nova Scotia.....	"	192	191	203	212	208
New Brunswick.....	"	148	153	162	153	170
Quebec.....	"	105	112	107	104	94
British Columbia.....	"	73	70	63	68	68
Totals, Establishments.....	No.	586	594	600	599	597
Employees—						
Male.....	No.	11,454	10,793	10,329	10,417	10,176
Female.....	"	7,942	7,838	6,168	5,670	5,748
Totals, Employees.....	"	19,396	18,631	16,497	16,087	15,924
Salaries and wages.....	\$'000	14,745	16,613	17,041	16,970	18,622
Fuel and electricity used.....	"	1,104	1,411	1,782	1,731	1,729
Materials used.....	"	68,013	62,780	74,588	69,090	74,446
Value of Products.....	"	100,124	105,206	115,321	111,919	118,968

¹ Figures for Newfoundland not available.

CHAPTER XV.—FURS

CONSPECTUS

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NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

Section 1.—The Fur Industry

Subsection 1.—Fur Trapping

The fur industry was at one time the most vigorous and remunerative industry in Canada and it still contributes many millions of dollars annually to the national income. Until the end of the 19th century practically all Canadian furs were wild-caught and although fur-farming has developed rapidly during the present century, trapping continues to provide much more than 50 p.c. of the income from raw furs produced in Canada.

Wild fur-bearers are still taken in moderate numbers, even in settled areas of this country, but the populations of such animals have, in general, been so reduced by the advance of settlement that the principal trapping areas now lie in the Northwest Territories and the northern parts of the provinces. Many wild animals, including some important fur-bearers, are subject to marked fluctuations in numbers from year to year, and these fluctuations are often greatest and most nearly regular in northern regions. The number of pelts of certain wild species taken annually is notably affected by these fluctuations.

Another and perhaps more important factor governing the 'take' of wild animal furs is the fluctuation in demand and in price consequent on changes in fashion. Thus, the vogue of recent years for short-haired furs, resulting from the desire of women to present as slender a silhouette as possible while wearing a fur coat, has caused a decrease in demand for fox and other long-haired pelts and a corresponding decrease in the number of such pelts taken by trappers. In areas, such as parts of the Northwest Territories, where these furs were formerly a staple source of income, this change in style has resulted in serious hardship but it is obvious that the problems thus created cannot be solved by wildlife-management practices.

Conservation and management of fur-bearers are, however, receiving increasing attention from federal and provincial authorities. Scientific studies of many species are being made to determine the principal factors controlling their numbers, the optimum annual harvest that should be taken, and the best methods of increasing this harvest. Among the controlling factors being studied are food, shelter, weather, diseases, parasites, and predators.

In certain fur-producing districts, provincial and territorial authorities have instituted a registration system in accordance with which trap-lines or trapping areas are assigned to individuals on a constant basis. This system puts the responsibility on the registered trapper for the conservation of fur-bearers in his own area and has, in general, proved highly successful.

Forest fires frequently wipe out wild-fur production for some time over large areas. Provincial forest services combat this menace by well-organized fire-fighting systems, including the use of aircraft and parachute-dropped fire-fighters and equipment, and by public education. Beaver dams also help to level off the effects of floods and drought, natural catastrophes that seriously affect fur-bearers and other wildlife. Beavers are, in fact, so useful as assistants to wildlife-management services that numbers of them are often transplanted, by air or otherwise, from areas where they are too numerous to areas where their activities will improve habitat for themselves and for other species.

The most important aspects of management of the fur-trapping industry are: constant practical scientific research, maintenance of suitable habitat and its improvement where possible, sound and balanced regulation of the harvest of fur-bearers, provision of competent and adequate field staffs, and true education of trappers with respect to the principles of wildlife management. By these means many areas depleted of fur-bearers have once again become productive. Such means will become increasingly important in maintaining Canada's position as a major producer of raw furs.

Subsection 2.—Fur Farming

Although early developments in raising fur-bearing animals on farms took place first in Prince Edward Island around 1887 and in Quebec in 1898, fur farming to-day is carried on in all the provinces of Canada. Foxes were the first fur bearers to be raised in captivity on a commercial scale but mink, chinchilla, raccoon, marten, fisher, fitch, nutria and many others are now being reared. Mink are the most numerous, followed by the various types of foxes and these two far outnumber all other kinds of fur-bearing animals.

There was a slow and steady increase in the number of fur-farms until 1920, when 587 were reported, with a period of more rapid growth from 1920 to 1938 when the number had reached 10,435. After the outbreak of hostilities in 1939 and the loss of the London and European markets, prices declined and many fur farms went out of production. Though prices rose considerably after the War, operating costs also increased and the number of fur farms, particularly those conducted in conjunction with other farming operations, continued to decrease. By 1950 only 3,492 reported but, despite this decrease in number, volume of production has gradually increased over the period.

While the earliest and most intensive fur-farming operations were concerned with fox-raising in the Maritime Provinces and Quebec, the sharp decline in the popularity of fox furs and the steady rise in mink resulted in Ontario and Western Canada taking predominant positions in the raising of fur animals. A distribution of the 317,000 animals on fur farms at Dec. 31, 1950, showed 11 p.c. in British Columbia, 47 p.c. in the Prairie Provinces, 25 p.c. in Ontario, 11 p.c. in Quebec and 6 p.c. in the Maritime Provinces.

Furs have for centuries been used for clothing and adornment and, with the demands of fashion, the development of new colour phases in fox and mink has been an important incentive to the fur-farming industry. There have always been mink mutations in the wild state but these unusual animals stood little chance of survival and such pelts were exceedingly rare. Only by breeding under protection could these strange animals be increased in number and variety. Starting with wild-caught mink, breeders have, by cross-breeding, produced mink furs in a

multitude of colours and patterns. By selective breeding the original reddish-brown mink has become a beautifully furred animal with a thick coat of soft velvety texture and rich blue-black colour, set off by a background of blue or slate-shaded under-fur.

Among the earliest mutations to appear was an attractive bluish-gray mink which became known as "Platinum" mink. Mink mutations began to appear in ever-increasing numbers on farms from coast to coast and later, as breeders again cross-bred these new mutations, a still greater profusion of colour combinations appeared. An excellent example of this cross-breeding of mutations is the "Sapphire" mink, a cross of the steel-blue "Aleutian" with the blue-gray "Platinum". Other unusual colour patterns are the "Royal Pastel", a beautiful brown mink with a bluish cast, and an exquisite snow-white mink.

It has long been known that the mink produces an extremely versatile fur and the industry is now setting great emphasis on this quality, thus gaining for mink a place among the high-quality furs of the world.

Section 2.—Statistics of Fur Production*

Total Fur Production Statistics.—Early records of raw-fur production are confined to the decennial censuses, when account was taken of the numbers and values of pelts obtained by trappers. In 1920 the Dominion Bureau of Statistics commenced an annual survey of raw-fur production, basing its statistics on information supplied by the licensed fur traders. This survey was continued for some years. More recently, annual statements based on royalties, export tax, etc., have been made available by the provincial game departments (except Prince Edward Island), and these statements are now used in the preparation of the statistics issued annually by the Bureau. Figures for Prince Edward Island are based on returns supplied to the Dominion Bureau of Statistics by fur traders in that Province.

1.—Pelts of Fur-Bearing Animals Produced, with Percentages Sold from Fur Farms, Years Ended June 30, 1932-51

(Exclusive of Newfoundland)

Year	Pelts		Percentage of Value Sold from Fur Farms ¹	Year	Pelts		Percentage of Value Sold from Fur Farms ¹
	Number	Value			Number	Value	
		\$				\$	
1932.....	4,440,289	10,189,481	30	1942.....	19,561,024	24,859,869	19
1933.....	4,503,558	10,305,154	30	1943.....	7,418,971	28,505,033	24
1934.....	6,076,197	12,349,328	30	1944.....	6,324,240	33,147,392	28
1935.....	4,926,413	12,843,341	31	1945.....	6,994,686	31,001,456	31
1936.....	4,596,713	15,464,883	40	1946.....	7,593,416	43,870,541	30
1937.....	6,237,640	17,526,365	40	1947.....	7,486,914	26,349,997	37
1938.....	4,745,927	13,196,354	43	1948.....	7,952,146	32,232,992	37
1939.....	6,492,222	14,286,937	40	1949.....	9,902,790	22,898,882	33
1940.....	9,620,695	16,668,348	31	1950.....	7,377,491	23,184,033	34
1941.....	7,257,337	21,123,161	26	1951.....	7,479,272	31,134,400	36

¹ Approximate.

Ontario leads the provinces in value of fur production, accounting for 26 p.c. of the total in the 1950-51 season. The numbers of pelts taken in both Alberta and Manitoba were higher than in Ontario, but in these provinces muskrat and squirrel, which are lower-priced furs, made up the major portion of the total. In Ontario the more valuable mink, beaver and fox pelts brought the total value to a higher level.

* Revised in the Agriculture Division, Dominion Bureau of Statistics.

2.—Pelts of Fur-Bearing Animals Produced, by Provinces, Years Ended June 30, 1950 and 1951

Province or Territory	1950			1951		
	Pelts	Value	Percentage of Total Value	Pelts	Value	Percentage of Total Value
	No.	\$		No.	\$	
Newfoundland.....	25,501	258,440	1.1	11,772	176,153	0.6
Prince Edward Island.....	88,000	309,872	1.3	356,827	611,979	2.0
Nova Scotia.....	55,315	394,905	1.7	27,814	170,670	0.5
New Brunswick.....	528,411	2,814,846	12.1	465,893	3,370,829	10.8
Quebec.....	936,313	6,199,228	26.8	1,042,208	8,210,658	26.4
Ontario.....	1,257,532	4,276,630	18.5	1,302,010	5,370,335	17.2
Manitoba.....	1,050,766	2,359,444	10.2	875,901	2,805,972	9.0
Saskatchewan.....	2,191,979	3,830,095	16.5	1,861,860	5,280,952	17.0
Alberta.....	528,700	1,631,983	7.0	662,792	2,736,544	8.8
British Columbia.....	153,574	199,086	0.9	228,616	361,969	1.2
Yukon Territory.....	561,400	909,504	3.9	643,579	2,038,339	6.5
Northwest Territories.....						
Canada.....	7,377,491	23,184,033	100.0	7,479,272	31,134,400	100.0

The average prices of the main kinds of pelts taken in 1950-51 were higher than in 1949-50. Fox pelts of all types increased, silver fox rising from \$10.63 per pelt to \$13.06. Mink rose from \$16.68 to \$20.57 and mutation mink from \$14.15 to \$21.60. The average value of beaver pelts was \$23.58 in 1950-51 as compared with \$20.99 in the previous year; muskrat rose from \$1.70 to \$2.25 and squirrel from 35 cents to 66 cents.

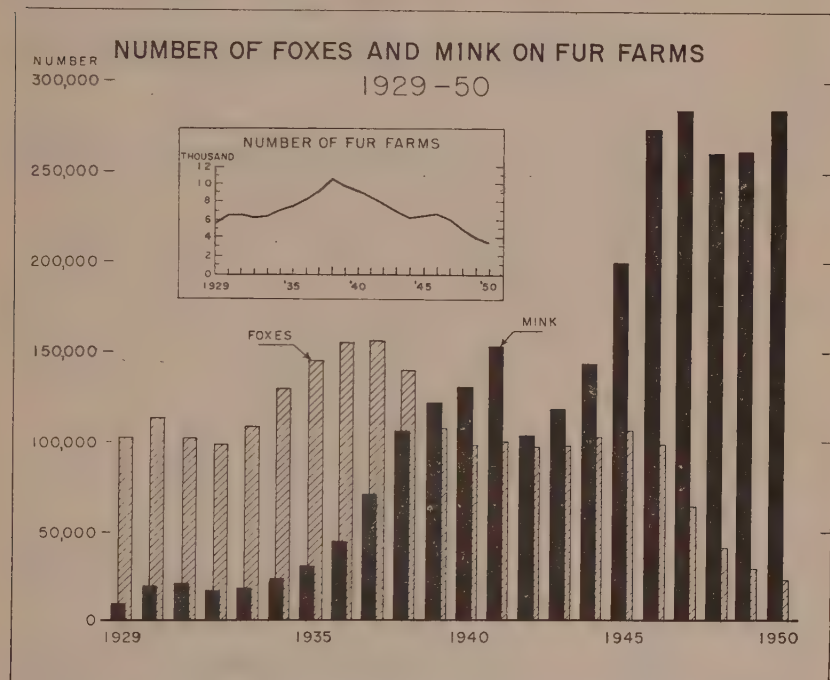
3.—Pelts of Fur-Bearing Animals Taken, by Kinds, Years Ended June 30, 1950 and 1951

(Exclusive of Newfoundland)

Kind	1950			1951		
	Pelts	Total Value	Average Value	Pelts	Total Value	Average Value
	No.	\$	\$	No.	\$	\$
Badger.....	1,125	600	0.53	702	743	1.06
Bear, white.....	297	7,515	25.30	377	9,525	25.27
Bear, unspecified.....	760	1,629	2.14	410	1,308	3.19
Beaver.....	157,416	3,304,923	20.99	180,817	4,262,977	23.58
Coyote or prairie wolf.....	15,686	39,644	2.53	32,721	142,584	4.36
Ermine (weasel).....	627,531	933,626	1.49	377,088	805,770	2.14
Fisher.....	2,710	78,456	28.95	3,707	91,931	24.80
Fitch.....	155	182	1.17	76	86	1.13
Fox, blue.....	1,954	19,589	10.03	2,063	21,647	10.49
Fox, cross.....	2,777	7,897	2.84	6,514	21,041	3.23
Fox, red.....	27,015	31,784	1.18	36,576	64,788	1.77
Fox, silver.....	59,029	627,204	10.63	38,561	503,658	13.06
Fox, new-type.....	21,923	271,950	12.40	11,749	171,684	14.61
Fox, white.....	19,775	167,044	8.45	52,566	684,272	13.02
Fox, other.....	60	252	4.20	40	199	4.98
Lynx.....	3,734	38,027	10.18	9,662	108,919	11.27
Marten.....	14,428	271,360	18.81	21,109	539,065	25.54
Mink, standard.....	564,409	9,416,007	16.68	598,008	12,300,312	20.57
Mink, mutation.....	103,278	1,461,034	14.15	107,288	2,317,723	21.60
Muskrat.....	3,138,609	5,334,160	1.70	2,958,662	6,645,903	2.25
Nutria.....	29	43	1.48	16	18	1.13
Otter.....	11,555	242,465	20.98	13,567	374,007	27.57
Rabbit.....	67,951	25,901	0.38	48,123	22,487	0.47
Raccoon.....	15,906	20,922	1.32	24,384	60,697	2.49
Skunk.....	10,085	4,914	0.49	16,389	12,872	0.79
Squirrel.....	2,507,436	870,809	0.35	2,935,520	1,943,103	0.66
Wild cat.....	781	725	0.93	649	898	1.37
Wolf.....	766	2,437	3.18	1,148	7,342	6.40
Wolverine.....	311	2,934	9.43	780	18,851	24.17
Totals.....	7,377,491	23,184,033	...	7,479,272	31,134,400	...

Fur Farm Statistics.—In 1950 the number of fur farms continued the decrease occurring each year since 1946, dropping from 4,049 in 1949 to 3,492 in 1950. The value of fur animals on farms at Dec. 31, 1950, was slightly higher than at the end of 1949 and the revenue from operations was also higher amounting to \$11,800,000 compared with \$9,500,000.

The number of farms reporting foxes in 1950 decreased since 1949 by 26 p.c. to 985, while the number of animals on these farms was lower by 21 p.c., totalling 23,811 valued at \$641,828. Mink farms showed a smaller decline from 2,798 in 1949 to 2,557 in 1950, but the number of animals on the farms reached a record total of 286,152 valued at \$8,400,000 in 1950, which was 22,479 more in number and \$1,900,000 higher in value than in 1949. Fox pelts produced decreased by 38 p.c., while mink pelts increased by 1 p.c.



4.—Fur Farms and Values of Fur-Bearing Animals, by Provinces, 1948-50

Province	Fur Farms			Values of Fur-Bearing Animals on Fur Farms		
	1948	1949	1950	1948	1949	1950
	No.	No.	No.	\$	\$	\$
Newfoundland.....						
Prince Edward Island....	246	179	127	172,688	158,108	146,908
Nova Scotia.....	219	163	130	175,973	154,987	184,051
New Brunswick.....	205	136	105	131,056	109,319	125,469
Quebec.....	1,058	718	561	1,345,593	1,179,718	1,306,429
Ontario.....	1,306	1,104	952	2,696,060	2,540,036	2,977,794
Manitoba.....	581	509	489	1,210,580	1,236,157	1,688,174
Saskatchewan.....	285	253	203	477,627	510,402	564,484
Alberta.....	793	657	601	1,600,248	1,576,938	1,678,989
British Columbia.....	347	330	324	1,099,710	1,277,560	1,473,988
Totals.....	5,040	4,049	3,492	8,909,535	8,743,225	10,444,286

5.—Fur-Bearing Animals on Fur Farms, as at Dec. 31, 1947-50

(Exclusive of Newfoundland)

Kind of Animal	1947		1948		1949		1950	
	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$
Chinchilla.....	4,040	1,578,400	4,339	1,088,900	5,685	1,428,708	6,053	1,350,860
Coyote.....	2	20	2	10	1	1	—	—
Fisher.....	148	17,871	83	10,250	116	10,600	99	9,860
Fitch.....	112	840	90	473	85	519	43	225
Fox, blue.....	2,344	82,665	985	40,103	738	28,220	557	21,359
Fox, cross.....	186	3,110	102	1,476	2	2	2	2
Fox, new-type.....	25,040	1,031,060	15,442	485,170	9,734	265,694	6,857	187,574
Fox, red.....	197	1,402	111	1,115	2	2	2	2
Fox, silver.....	36,685	1,048,991	26,166	690,911	19,578	504,799	16,279	431,267
Fox, other.....	72	4,095	61	1,800	150	1,839	118	1,623
Lynx.....	4	250	4	200	1	1	—	—
Marten.....	344	31,489	427	39,690	371	30,790	327	31,020
Mink.....	285,128	10,311,507	262,827	6,544,333	263,673	6,469,273	286,152	8,408,379
Nutria.....	208	3,238	130	4,167	67	1,650	38	1,430
Raccoon.....	156	1,001	163	922	147	1,009	114	623
Skunk.....	2	10	3	15	1	1	1	1
Other fur animals..	—	—	—	—	8	124	9	61
Totals.....	354,668	14,115,949	310,935	8,909,535	300,352	8,743,225	316,646	10,444,286

¹ Included in "Other fur animals".² Included in "Fox, other".

6.—Values of Fur-Bearing Animals and of Pelts Sold from Fur Farms, 1947-50.

(Exclusive of Newfoundland)

Kind of Animal	1947		1948		1949		1950	
	Animals	Pelts	Animals	Pelts	Animals	Pelts	Animals	Pelts
	\$	\$	\$	\$	\$	\$	\$	\$
Chinchilla.....	238,820	—	201,557	—	404,161	150	518,750	—
Fisher.....	7,150	2,125	1,200	1,267	975	177	1	1
Fitch.....	113	676	90	1,422	75	280	1	1
Fox, blue.....	4,210	52,740	2,030	94,053	210	37,802	185	20,277
Fox, cross.....	160	4,490	105	2,436	2	2	2	2
Fox, new-type.....	38,451	1,389,998	9,459	1,015,612	2,642	427,964	4,287	283,573
Fox, red.....	25	2,203	2	2	2	2	2	2
Fox, silver.....	43,779	1,482,328	33,882	977,690	16,615	505,404	14,567	463,181
Fox, other.....	276	618	50	1,416	92	1,788	13	930
Marten.....	2,370	1,479	2,870	877	6,081	1,210	2,754	2,841
Mink.....	1,039,379	8,780,456	537,643	5,875,376	288,411	7,820,747	431,212	10,064,005
Nutria.....	140	270	534	388	80	2	1	1
Raccoon.....	84	113	65	15	42	26	1	1
Other fur animals..	—	—	—	—	300	—	730	700
Totals.....	1,374,957	11,717,496	789,485	7,970,552	719,684	8,795,550	972,498	10,835,507

¹ Included with "Other fur animals".² Included in "Fox, other".

Section 3.—Marketing of Furs

The first Canadian fur auction sale was held in 1920 at Montreal, Que., and although that city has always been the leading Canadian fur mart, auction sales are now held at Vancouver, B.C., Edmonton, Alta., Regina, Sask., and Winnipeg, Man. The Saskatchewan Government maintains a Fur Marketing Service at Regina to assist the producers in that Province.-

Grading.—The grading of furs was introduced in 1939 by the Federal Department of Agriculture to secure uniformity so that furs may be purchased by grade without the necessity of buyers from other countries personally examining the

pelts. Grading offers many advantages to the producer as well as to the trade in general. It educates the rancher as to the proper value of his pelts and creates an incentive to improve the quality of the product; it furnishes guidance in the planning of future matings, aids in raising the standard of quality of the entire crop of pelts and helps in advancing the level of prices for high-quality pelts.

Exports and Imports.—Prior to World War II, Canada marketed fur pelts mainly in the United Kingdom but, since that market was practically dormant during the war years, the fur trade was carried on mainly with the United States. A definite revival of trade with the United Kingdom was shown between 1946 and 1948 but decreases of 39 p.c. and 18 p.c., respectively, in exports of furs to that market were shown in 1949 and 1950.

The Canadian fur trade, both export and import, is chiefly in undressed furs, the value of dressed and manufactured furs going out of or coming into Canada making up a comparatively small proportion of the total. Exports consist largely, of course, of furs which Canada produces in greatest abundance, mink being the most valuable followed by beaver, muskrat and fox. On the other hand, furs such as Persian lamb, certain types of muskrat, rabbit, squirrel, sheep and lamb, which are not produced to any extent in Canada, make up the major portion of the imports.

Total exports and imports of all furs to and from the United States, the United Kingdom and all countries are given for the years 1947-49 in Part I, Section 4, of the Foreign Trade Chapter XXI, Tables 13 and 14.

7.—Exports and Imports of Furs, by Kinds, 1950

Kind of Fur	Exports			Kind of Fur	Imports		
	United Kingdom	United States	All Countries		United Kingdom	United States	All Countries
	\$	\$	\$		\$	\$	\$
Undressed—				Undressed—			
Beaver.....	655,500	3,306,790	3,986,172	China and Jap			
Ermine.....	191,218	496,452	687,670	mink.....	—	288,238	310,886
Fisher.....	31,816	89,561	132,767	Fox.....	884	68,686	69,570
Fox, all types.....	472,569	680,565	1,383,743	Kolinsky.....	—	141,426	141,426
Lynx.....	7,571	86,070	93,985	Marine.....	—	31,022	31,022
Marten.....	47,582	257,225	304,807	Mink.....	28,011	1,514,575	1,544,381
Mink.....	987,774	12,336,524	13,368,028	Muskrat.....	9,361	4,689,444	4,698,805
Muskrat.....	883,835	1,627,280	2,539,657	Opossum.....	2,535	15,405	19,052
Otter.....	28,102	207,336	235,438	Persian lamb.....	235,844	6,456,027	7,415,647
Rabbit.....	476	30,681	31,157	Rabbit.....	—	446,987	755,435
Raccoon.....	3,797	56,416	60,288	Raccoon.....	—	273,295	273,295
Seal.....	13,035	4,669	17,704	Sheep and lamb.....	—	507,651	971,812
Skunk.....	3,184	5,918	9,895	Squirrel.....	15,732	857,762	889,964
Squirrel.....	661,528	13,277	676,807	Other.....	14,878	1,568,936	1,640,287
Weasel.....	7,476	183,529	191,005	Dressed—			
Wolf.....	1,290	26,828	28,118	Astrakhan, Rus-			
Other.....	2,411	36,873	45,012	sian hare.....	—	2,859	2,859
Dressed—				Rabbit.....	13,346	8,428	67,564
Fox.....	—	80	1,993	Sheepskins.....	3,484	82,878	89,465
Other.....	9,771	513,282	630,514	Other.....	62,830	603,233	692,408
Manufactured.....	700	848,388	873,496	Manufactured.....	331,327	552,571	936,255
Totals.....	4,009,635	20,807,744	25,298,256	Totals¹.....	718,232	18,109,423	20,550,133

¹ Not including hatters' furs.

Section 4.—The Fur-Processing Industry*

The rather general term "fur processing" includes the fur-dressing and -dyeing industry and the fur-goods industry. The former is concerned with the dressing or dyeing of pelts on a custom basis, while the latter is a manufacturing industry that actually makes up fur goods such as coats, scarves and gloves.

Fur-dressing and -dyeing industry statistics were first recorded in 1917, when 12 establishments with 512 employees reported receipts of \$1,071,805. Eight establishments in 1924 reported a revenue of \$1,120,895, expenditures on dyes, chemicals and other materials used of \$162,013 and on salaries and wages to 539 employees of \$561,233. Of the 3,473,909 skins treated in that year, muskrat pelts made up 47 p.c., rabbit 19 p.c. and squirrel 10 p.c. By 1950 the number of skins treated had increased to 13,639,110, muskrat accounting for 34 p.c., rabbit for 29 p.c. and squirrel for 13 p.c. Other types of skins treated fluctuated very widely over the past quarter-century, the numbers being affected not only by climatic conditions under which trapping is carried on but also by the development of fur farming and, above all, by the vagaries of fashion. Principal statistics of the fur-dressing industry for the years 1948, 1949 and 1950 are given in Table 8.

8.—Principal Statistics of the Fur-Dressing Industry, 1948-50

Item		1948	1949	1950
Establishments.....	No.	21	21	22
Employees on Salaries—				
Male.....	No.	123	109	120
Female.....	"	37	42	44
Employees on Wages—				
Male.....	No.	1,124	1,224	1,187
Female.....	"	318	295	282
Salaries paid.....	\$	596,035	628,890	653,615
Wages paid.....	\$	2,523,432	2,858,743	2,766,881
Cost of materials used (dyes, chemicals, etc.).....	\$	1,135,650	1,215,541	1,294,259
Pelts treated.....	No.	14,137,455	13,933,261	13,639,110
Amount received for treatment of furs.....	\$	6,126,532	6,691,418	6,514,772

Statistics for the fur-goods industry, on a comparable basis, are available from 1921, when 219 establishments reported a gross value of production of \$13,639,609, with employees numbering 2,621 who received \$3,013,706 in salaries and wages. Cost of materials used in the manufacturing process totalled \$8,118,833. Principal statistics for the industry for the years 1948, 1949 and 1950 are given in Table 9.

* Prepared in the Animal Products Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

9.—Principal Statistics of the Fur-Goods Industry, 1948-50

Item		1948	1949	1950
Establishments.....	No.	615	642	609
Employees on Salaries—				
Male.....	No.	1,193	1,305	1,250
Female.....	"	340	387	359
Employees on Wages—				
Male.....	No.	2,747	2,816	2,728
Female.....	"	2,163	2,192	1,992
Salaries paid.....	\$	4,154,725	4,718,648	4,755,675
Wages paid.....	\$	9,327,690	9,801,931	9,841,027
Cost of materials used.....	\$	43,938,122	37,260,284	38,309,241
Value of products.....	\$	66,384,085	60,955,010	61,930,099

Changes in living habits and standards that have taken place in the past quarter-century are reflected in the type of goods produced by the fur-goods industry. For example, in 1921 there were 31,604 ladies' fur coats and jackets produced whereas, in 1948, there were 225,711 ladies' fur coats made; the number dropped to 207,816 in 1949, and to 191,915 in 1950. The manufacture of men's fur coats, however, showed a decided reversal in the market as there were 4,655 men's fur coats and 1,037 men's fur-lined coats manufactured in 1921 but a total of only 329 such coats in 1950. In 1921 horse-drawn sleighs were still reasonably plentiful and 4,461 fur robes were produced but, by 1950, production had dropped to virtually none.

CHAPTER XVI.—MANUFACTURES

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

This Chapter deals with manufacturing industries in Canada in two Parts. Part I gives general analyses including: the historical development of manufacturing; detailed treatment of current production under various groupings and individual industries; and principal factors in manufacturing production such as capital, employment, salaries and wages, and size of establishment. Part II deals with the provincial and local distribution of manufacturing production.

It is impossible to give absolutely comparable statistics over a long period of years. From 1870 to 1915 statistics were collected only in connection with decennial or quinquennial censuses, and there was inevitably some variation in the information collected. The annual Census of Manufactures was instituted in 1917 and, while numerous changes have been made since then in the information collected and the treatment of the data, an effort has been made to carry all major revisions, as far as possible, back to 1917, so that the figures for the period since then are on a reasonably comparable basis.

Canada now ranks among the important manufacturing countries of the world and holds a dominant position in the export of many manufactured products. The forward movement in development has been the result of three great influences: firstly the opening of the west at the beginning of the present century which greatly increased the demand for manufactured goods of all kinds, especially construction materials; secondly, World War I which left a permanent imprint upon the variety and efficiency of Canadian plants; and thirdly, World War II with its insatiable demands for food and manufactured products of all kinds. More especially during

the second world war the situation created as a result of Canada's strategic position as a source of food and armaments had far-reaching effects on the magnitude and diversification of Canadian manufacturing production, with the result that Canada, with greatly increased skills and plant capacity, has now entered a new era in manufacturing development.

Outstanding economic factors of 1950, such as the record gross national product of \$18,029,000,000, the level of capital investment at \$3,791,000,000 and foreign trade at \$6,000,000,000, are the immediate manifestations of trends over the past decade. With a labour force less than 14 p.c. larger than in 1939, the Canadian economy has shown remarkable growth. Production of durable goods has expanded the most, especially automobiles, trucks and electrical apparatus. Electric power output has doubled and aluminum has advanced five times. Steel production is up two and one-half times. Mineral production has doubled. Canada's pulp and paper industry has continued its premier position with Canadian newsprint production leading the world.

The discovery of oil at Leduc, Alta., in February 1947, altered Canada's industrial destiny. Output of oil had been dwindling; more than 90 p.c. of the oil used in Canada was being imported and causing a heavy drain on holdings of United States currency. In the three years following the Leduc strike, Canada's oil reserves jumped from 35,000,000 bbl. to 1,500,000,000 bbl. and potential output rose to approximately 145,000 bbl. daily, or 40 p.c. of Canadian consumption. Developments in the oil industry of Alberta have been closely paralleled by developments in natural gas. Expansion in this industry, too, has been nothing short of spectacular. In the past five years, household, commercial and industrial sales of natural gas increased by about 55 p.c. Natural gas is the cheapest source of energy for many purposes and, when available in large quantities and at relatively low price, plays an important role in manufacturing production.

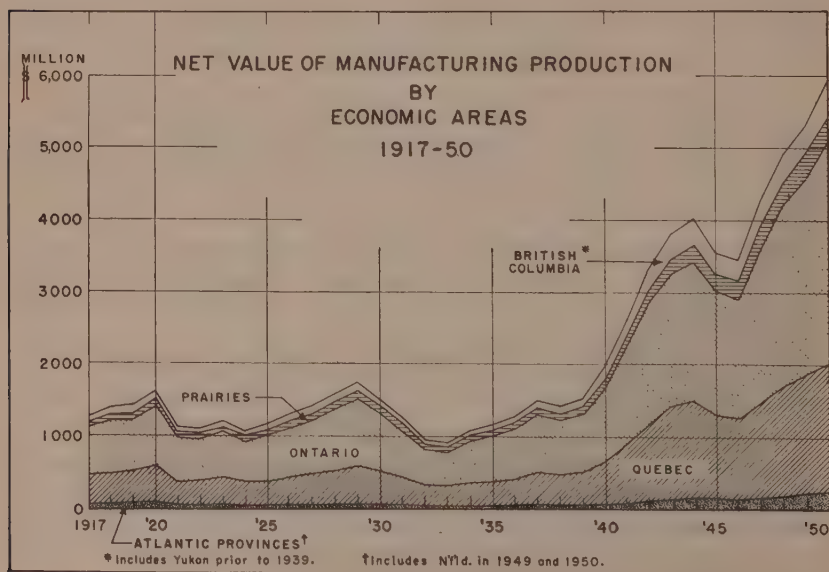
Another new source of industrial wealth lies in the huge iron deposits on the Quebec-Labrador boundary, 320 miles north of the St. Lawrence River. More than 400,000,000 tons of ore have already been proven and plans call for production by 1955 at an annual rate of 10,000,000 tons.

Oil, gas and iron will transform the base of Canadian industry and widen the horizon for manufactured goods. The gross value of manufactured products in Canada reached \$12,480,000,000 in 1949 and was approximately \$13,817,526,000 in 1950. About one-half of the 1950 total was accounted for by 15 leading industries based on the utilization of forest and food resources, iron and steel, and fuel and power. Development in these industries has been outstanding, but this advance must not be allowed to detract from the solid, steady growth of Canadian manufacturing as a whole. In the years 1946 to 1950, 1,031 entirely new companies began operations in manufacturing. These firms employed 41,000 people, paid salaries and wages of \$70,000,000 and had a gross value of production of \$350,000,000. Thus, nearly 4 p.c. of the jobs in manufacturing currently available to Canadians are the direct result of operations of new companies.

Two major changes were adopted in the compilation of manufacturing statistics starting with 1949. Figures for that year contained statistics for the Province of Newfoundland and a change was made in the system of classifying industries. Under the Standard Classification adopted, the industries are divided into 17 major groups instead of the nine groups under the component material classification.

For most purposes a classification of manufacturing industries based on chief component materials has, in the past, proved very useful. Such classification was wholly applicable when the industry of the country was concerned with the early stages in the processing of primary materials, i.e., when final products were mainly such items as pig iron, lumber and processed fish. As manufacturing industries developed, however, turning out more and more goods for consumption, the combination of ingredients in such output became more and more complex. The modern automotive, aircraft, shipbuilding and electrical-apparatus industries are examples in which a wide variety of materials must be assembled for the completion of the final product.

In establishing the Standard Industrial Classification, the concept of "purpose" has been combined with that of "chief component material" in the framework of the classification of manufacturing industries. For the classification of consumer-goods industries the concept of "purpose" seems most applicable both in terms of common usage in referring to industries and in providing the type of data most often required. Hence, such major groups as food and beverages, clothing, transportation equipment, and electrical apparatus and supplies have been established.



PART I.—GENERAL ANALYSES OF MANUFACTURING

Section 1.—Growth of Manufacturing

This Section gives a picture of the growth of manufacturing, in general, as shown by comparable principal statistics, i.e., establishments, capital, employees, salaries and wages paid, cost of materials and values of products. Other useful comparisons are made in Table 4 and figures of consumption are given in Table 5.

1.—Summary Statistics of Manufactures, 1917-50

NOTE.—Statistics of manufacturing from 1870 have been published, but between that year and 1917 figures are not on a comparable basis to the series given below. Statistics for significant years will be found in the 1943-44 Year Book, p. 363. Statistics of the non-ferrous metal smelting industries were included in manufactures in 1925 for the first time.

Year	Estab-lish-ments	Capital	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products ¹	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
1917.....	21,845	2,333,991,229	606,523	497,801,844	1,539,678,811	1,281,131,980	2,820,810,791
1918.....	21,777	2,518,197,329	602,179	567,991,171	1,827,631,548	1,399,794,849	3,227,426,397
1919.....	22,083	2,670,559,435	594,066	601,715,668	1,779,056,765	1,442,400,638	3,221,457,403
1920.....	22,532	2,923,667,011	598,893	717,493,876	2,085,271,649	1,621,273,348	3,706,544,997
1921.....	20,848	2,697,858,073	438,555	497,399,761	1,365,292,885	1,123,694,263	2,488,987,148
1922.....	21,016	2,667,493,290	456,256	489,397,230	1,272,651,585	1,103,266,106	2,375,917,691
1923.....	21,080	2,788,051,630	506,203	549,529,631	1,456,595,367	1,206,332,107	2,662,927,474
1924.....	20,709	2,895,317,508	487,610	534,467,675	1,422,573,946	1,075,458,459	2,570,561,931
1925 ²	20,981	3,065,730,916	522,924	569,944,442	1,571,788,252	1,167,936,726	2,816,864,958
1926 ²	21,301	3,208,071,197	559,161	625,682,242	1,712,519,991	1,305,168,549	3,100,604,637
1927 ²	21,501	3,454,825,529	595,052	662,705,332	1,741,128,711	1,427,649,292	3,257,214,876
1928 ²	21,973	3,804,062,566	631,429	721,471,634	1,894,027,188	1,597,887,676	3,582,345,302
1929 ²	22,216	4,004,892,009	666,531	777,291,217	2,029,670,813	1,755,386,937	3,883,446,116
1930 ²	22,618	4,041,030,475	614,696	697,555,378	1,664,787,763	1,522,737,125	3,280,236,603
1931.....	23,083	3,705,701,893	528,640	587,566,990	1,221,911,982	1,252,017,248	2,555,126,448
1932.....	23,102	3,380,475,509	468,833	473,601,716	954,381,097	955,960,724	1,980,471,543
1933.....	23,780	3,279,259,838	468,658	436,247,824	967,788,928	919,671,181	1,964,075,785
1934.....	24,209	3,249,348,864	519,812	503,851,055	1,229,513,621	1,087,301,742	2,393,692,729
1935.....	24,034	3,216,403,127	556,664	559,467,777	1,419,146,217	1,153,485,104	2,653,911,209
1936.....	24,202	3,271,263,531	594,359	612,071,434	1,624,213,996	1,289,592,672	3,002,403,814
1937.....	24,834	3,465,227,831	660,451	721,727,037	2,006,926,787	1,508,924,867	3,625,459,500
1938.....	25,200	3,485,683,018	642,016	705,668,559	1,807,478,028	1,428,286,778	3,337,681,366
1939.....	24,805	3,647,024,449	658,114	737,811,153	1,836,159,375	1,531,051,901	3,474,783,528
1940.....	25,513	4,095,716,836	762,244	920,872,865	2,449,721,903	1,942,471,238	4,529,173,316
1941.....	26,293	4,905,503,966	961,178	1,264,862,643	3,296,547,019	2,605,119,768	6,076,308,124
1942.....	27,862	5,488,785,545	1,152,091	1,682,804,842	4,037,102,725	3,309,973,758	7,553,794,972
1943.....	27,652	6,317,166,727	1,241,068	1,987,292,384	4,690,493,093	3,816,413,541	8,732,860,999
1944.....	28,483	"	1,222,882	2,029,621,870	4,832,333,356	4,015,776,010	9,073,692,519
1945.....	29,050	"	1,119,372	1,845,773,449	4,473,668,847	3,564,315,899	8,260,368,866
1946.....	31,249	"	1,058,156	1,740,687,254	4,358,234,766	3,467,004,980	8,035,692,471
1947.....	32,734	"	1,131,750	2,085,925,966	5,534,280,019	4,292,055,802	10,081,026,580
1948 ³	33,420	"	1,155,721	2,409,368,190	6,632,881,628	4,938,786,981	11,875,169,635
1949 ⁴	35,792	"	1,171,207	2,591,890,657	6,843,231,064	5,330,566,434	12,479,593,300
1950 ⁴	35,942	"	1,183,297	2,771,267,435	7,538,534,532	5,942,058,229	13,817,526,381

¹ For 1924 and subsequent years the net value of production is computed by subtracting the cost of fuel and electricity and the cost of materials from the gross value. Figures prior to 1924 are not comparable because statistics for cost of electricity are not available.

² A change in the method of computing the number of wage-earners in the years 1925 to 1930, inclusive, increased the number somewhat over that which the method otherwise used would have given. In 1931, however, the method in force prior to 1925 was re-adopted.

³ Not collected.

⁴ Includes Newfoundland.

2.—Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-50

Province and Year	Estab-lish-ments	Capital	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products ¹	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
Newfoundland—							
1917.....	793	2	6,934	15,486,336	31,228,173	32,918,776	67,264,282
1920.....	850	2	6,682	16,246,252	31,505,623	36,712,377	71,062,850
Prince Edward Island—							
1917.....	411	2,008,082	1,556	663,251	3,087,621	1,750,135	4,837,756
1920.....	370	2,328,686	1,287	855,210	4,164,223	2,135,857	6,300,080
1929 ³	263	2,646,354	2,074	727,286	2,862,725	1,466,446	4,408,608
1933.....	249	2,256,307	991	529,684	1,590,834	1,126,826	2,775,787
1939.....	222	2,682,900	1,088	617,945	2,239,117	1,243,979	3,543,681
1944.....	241	2	1,786	1,694,763	6,993,510	3,570,835	10,713,644
1946.....	246	2	1,755	1,651,469	7,582,046	3,469,435	11,200,310
1948.....	254	2	1,759	2,073,985	12,634,765	4,217,680	17,074,084
1949.....	251	2	1,747	2,133,555	13,537,144	4,338,320	18,123,200
1950.....	244	2	1,786	2,342,180	15,243,042	4,284,417	19,811,023
Nova Scotia—							
1917.....	1,337	124,357,851	25,252	18,838,051	102,415,215	57,565,703	159,980,918
1920.....	1,345	135,679,188	23,425	25,625,089	85,724,785	61,371,243	147,096,028
1929 ³	1,094	118,951,398	19,986	16,905,885	50,725,562	35,676,421	89,787,548
1933.....	1,277	92,004,624	12,211	9,604,680	25,354,319	19,988,257	47,912,432
1939.....	1,083	101,954,082	17,627	16,651,685	43,332,195	35,885,563	83,139,572
1944.....	1,281	2	37,812	59,940,411	103,463,123	93,376,638	204,421,664
1946.....	1,397	2	29,724	43,060,259	100,354,480	71,738,873	178,793,737
1948.....	1,440	2	30,348	52,553,200	140,761,593	95,774,483	246,111,683
1949.....	1,480	2	29,311	54,686,577	135,841,899	102,294,298	247,592,389
1950.....	1,482	2	28,479	54,888,061	147,131,045	97,780,564	255,887,499
New Brunswick—							
1917.....	943	60,300,907	19,710	12,893,014	32,380,621	27,027,725	59,408,346
1920.....	901	101,216,395	19,007	19,266,821	60,812,641	45,803,164	106,615,805
1929 ³	803	91,376,948	17,952	15,127,716	39,800,366	26,640,786	68,145,012
1933.....	747	80,148,317	11,336	9,308,100	20,442,421	18,166,713	41,345,622
1939.....	803	91,171,323	14,501	13,659,162	35,617,614	27,041,195	66,058,151
1944.....	937	2	23,164	32,345,080	83,993,599	62,258,478	152,106,577
1946.....	993	2	22,732	33,151,919	96,389,299	67,783,377	170,753,741
1948.....	1,067	2	24,325	43,918,687	134,410,529	91,404,150	234,579,684
1949.....	1,060	2	23,446	44,219,819	131,804,253	91,187,375	231,506,191
1950.....	1,107	2	23,863	46,386,069	148,066,224	106,204,409	263,753,067
Quebec—							
1917.....	7,032	662,012,975	188,043	141,008,616	385,212,984	380,882,409	766,095,393
1920.....	7,530	878,859,638	183,748	202,516,550	553,558,520	499,643,217	1,053,201,737
1929 ³	6,948	1,246,208,650	206,580	225,226,808	537,270,055	537,796,395	1,108,592,775
1933.....	7,856	1,035,339,591	157,481	134,696,386	292,560,568	288,504,782	604,496,078
1939.....	8,373	1,182,538,441	220,321	223,757,767	536,823,039	470,385,279	1,045,757,585
1944.....	9,656	2	424,115	668,156,053	1,494,253,063	1,350,519,134	2,929,685,183
1946.....	10,818	2	357,276	565,986,105	1,297,009,099	1,125,991,848	2,497,971,521
1948.....	11,107	2	383,835	756,078,652	1,954,111,943	1,533,798,259	3,598,870,345
1949.....	11,579	2	390,275	809,579,270	2,027,793,643	1,651,629,668	3,788,497,123
1950.....	11,670	2	390,163	851,334,700	2,225,476,250	1,798,320,105	4,142,473,290
Ontario—							
1917.....	9,061	1,157,850,643	299,389	258,393,065	794,556,502	662,174,261	1,456,730,763
1920.....	9,113	1,464,097,346	295,674	362,941,317	1,071,843,374	792,267,562	1,864,110,936
1929 ³	9,348	1,986,736,556	328,533	406,622,627	1,056,550,202	916,971,816	2,020,492,433
1933.....	9,542	1,587,947,947	224,816	220,530,088	464,544,563	465,103,842	958,776,858
1939.....	9,824	1,762,571,669	318,871	378,376,209	907,011,461	791,428,569	1,745,674,707
1944.....	10,731	2	564,392	975,038,060	2,310,347,858	1,930,043,913	4,339,797,784
1946.....	11,424	2	498,120	845,216,547	2,001,900,592	1,659,284,622	3,754,523,701
1948.....	12,118	2	551,556	1,210,438,044	3,116,084,345	2,486,007,774	5,742,269,854
1949.....	12,951	2	557,190	1,305,544,434	3,258,454,918	2,708,554,013	6,103,804,834
1950.....	12,809	2	566,513	1,412,999,146	3,598,821,495	3,068,141,837	6,822,953,931

For footnotes, see end of table.

2.—Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-50

—concluded

Province or Territory and Year	Estab-lish-ments	Capital	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products ¹	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
Manitoba—							
1917.....	732	82,566,858	18,939	16,513,423	69,715,149	42,280,801	111,995,950
1920.....	747	94,424,145	23,728	32,372,081	92,729,271	62,776,912	155,506,183
1929 ²	861	121,363,898	24,012	31,224,596	87,832,324	63,925,015	155,266,294
1933.....	1,010	100,074,404	18,871	18,687,430	44,579,998	37,390,275	83,934,777
1939.....	1,087	119,659,365	23,910	28,444,798	82,408,293	48,810,544	134,293,595
1944.....	1,290	"	40,937	62,758,081	226,234,925	120,339,926	352,334,594
1946.....	1,357	"	38,367	61,018,345	223,096,935	122,780,805	351,887,099
1948 ³	1,399	"	40,522	79,230,931	296,606,269	157,426,179	461,974,200
1949.....	1,520	"	41,956	86,088,380	299,101,498	167,335,495	474,681,912
1950.....	1,507	"	40,985	88,701,601	300,384,707	177,051,583	485,906,206
Saskatchewan—							
1917.....	560	24,372,585	6,230	5,403,332	22,040,674	13,894,179	35,934,853
1920.....	554	24,640,520	6,709	9,571,175	34,894,105	22,610,861	57,504,966
1929 ²	594	43,925,797	7,025	9,105,597	51,003,566	23,002,952	75,368,605
1933.....	673	38,688,433	4,782	4,848,763	19,124,030	11,478,634	31,559,387
1939.....	737	37,654,095	6,475	7,346,127	38,782,135	20,283,273	60,650,889
1944.....	1,054	"	12,361	17,703,103	131,215,017	40,833,333	175,349,234
1946.....	955	"	11,957	17,956,317	126,595,761	38,459,680	168,356,619
1948.....	926	"	10,950	21,038,911	172,423,275	45,053,786	221,363,603
1949.....	962	"	10,841	22,273,942	164,349,341	47,356,949	215,742,708
1950.....	887	"	10,596	23,010,469	164,557,306	49,494,641	218,079,955
Alberta—							
1917.....	636	49,146,241	9,461	8,662,417	42,632,212	23,883,673	66,515,885
1920.....	666	48,310,655	10,955	15,210,628	56,139,646	29,812,891	85,952,537
1929 ²	736	81,875,952	12,216	14,585,734	62,500,175	36,824,969	100,966,196
1933.....	874	69,604,563	9,753	9,573,468	29,425,975	18,876,929	49,395,514
1939.....	961	73,284,225	12,712	14,977,700	53,151,149	32,018,153	87,474,080
1944.....	1,165	"	22,186	33,227,729	179,082,537	77,415,753	252,949,894
1946.....	1,315	"	22,649	34,939,088	169,426,176	83,735,011	267,031,867
1948 ³	1,567	"	25,690	49,735,336	253,754,967	107,124,387	366,079,501
1949.....	1,685	"	26,425	55,115,554	251,584,059	114,681,296	371,995,120
1950.....	1,671	"	26,732	58,416,324	272,131,049	123,892,868	402,840,023
British Columbia—							
1917 ⁴	1,133	171,375,087	37,943	35,426,675	87,637,833	71,673,094	159,310,927
1920 ⁴	1,306	174,110,438	34,360	49,135,005	125,405,084	104,851,641	230,256,725
1929 ²	1,569	311,806,456	48,153	57,764,968	141,145,838	113,082,137	260,418,645
1933 ⁴	1,552	263,195,652	28,417	28,469,225	70,166,220	59,034,923	133,879,330
1939.....	1,710	274,969,502	42,554	53,881,994	136,655,872	103,263,292	247,948,600
1944.....	2,116	"	96,062	178,639,118	303,560,016	337,137,197	655,844,689
1946.....	2,731	"	75,484	137,506,645	335,708,533	293,352,652	644,527,898
1948 ³	3,525	"	86,599	193,954,224	549,275,003	417,600,758	985,516,621
1949.....	3,493	"	82,934	196,403,722	531,112,329	409,665,348	959,008,088
1950.....	3,696	"	87,375	216,656,977	634,177,837	479,606,261	1,133,016,956
Yukon and N.W.T.—							
1939.....	5	538,847	55	97,766	138,500	92,054	242,968
1944.....	12	"	67	118,972	189,718	280,803	489,256
1946.....	13	"	92	200,560	172,845	408,727	646,295
1948.....	17	"	137	346,220	818,919	379,525	1,330,110
1949.....	18	"	148	359,068	643,807	604,896	1,377,453
1950.....	19	"	123	285,656	1,039,954	569,167	1,741,531

¹ See footnote 1, Table 1.
Yukon Territory.² Not collected.³ See footnote 2, Table 1.⁴ Includes

In order to retain some continuity with the past, Table 3 continues the historical series on the chief component material classification basis. Similar statistics under the Standard Classification groups, worked back to 1945, are given in Table 7, p. 611.

3.—Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-50

Industrial Group and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products ¹	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
Vegetable Products—							
1917.....	4,151	279,627,827	62,777	45,915,557	367,214,061	183,782,501	550,996,562
1920.....	4,549	402,383,047	74,241	77,750,189	536,828,044	239,328,371	776,156,415
1929 ²	5,350	581,820,861	91,032	95,853,121	431,595,751	341,688,938	783,706,883
1933.....	5,916	522,389,736	75,416	68,535,349	226,879,373	196,820,952	432,315,617
1939.....	5,872	539,446,225	99,447	104,248,785	356,726,153	292,129,840	659,624,014
1944.....	5,941	"	130,679	183,943,948	763,606,750	485,551,491	1,270,518,297
1946.....	5,916	"	137,170	206,893,681	871,436,061	575,963,454	1,649,914,130
1948.....	5,912	"	140,785	264,371,792	1,172,108,044	702,724,107	1,902,985,965
1949.....	5,903	"	143,032	285,536,723	1,236,409,496	754,329,727	2,020,565,833
1950.....	5,801	"	142,895	301,287,533	1,318,093,571	834,723,002	2,185,046,049
Animal Products—							
1917.....	5,486	207,165,245	46,994	35,753,133	320,302,039	124,103,990	444,406,029
1920.....	4,823	221,792,457	48,687	54,291,606	400,496,354	152,995,130	553,491,484
1929 ²	4,490	243,825,065	67,670	62,081,423	345,351,832	127,929,857	477,761,855
1933.....	4,496	201,993,642	53,111	46,453,188	179,429,948	87,629,444	271,068,210
1939.....	4,362	250,335,831	69,358	68,231,871	333,647,306	122,821,410	461,983,262
1944.....	4,388	"	94,195	129,215,389	835,586,247	246,064,720	1,092,015,647
1946.....	4,528	"	102,844	151,517,837	849,242,804	271,279,430	1,132,233,759
1948.....	4,323	"	102,817	186,776,617	1,203,694,769	342,913,582	1,562,378,976
1949.....	4,231	"	102,657	197,189,519	1,158,872,220	369,545,771	1,543,930,584
1950.....	4,141	"	98,795	200,595,193	1,210,657,408	372,535,320	1,599,723,667
Textiles and Textile Products—							
1917.....	1,067	191,338,745	76,975	47,764,436	131,225,032	109,904,530	241,129,562
1920.....	1,304	302,758,185	87,730	84,433,609	256,233,300	173,741,035	429,974,335
1929 ²	1,534	360,762,584	103,881	94,969,433	217,954,088	180,469,064	403,205,809
1933.....	1,740	298,730,436	95,707	72,813,424	143,184,861	131,065,992	279,475,267
1939.....	1,930	347,248,927	121,022	107,117,035	203,618,197	181,927,898	392,657,759
1944.....	2,481	"	153,122	195,805,681	419,988,642	351,136,488	781,771,688
1946.....	3,082	"	164,737	228,018,323	459,664,221	418,263,665	888,658,943
1948.....	3,177	"	182,123	314,831,441	645,183,100	576,997,482	1,286,088,635
1949.....	3,234	"	186,328	342,930,642	669,108,586	606,402,697	1,290,314,474
1950.....	3,266	"	188,614	362,381,291	750,631,525	639,958,673	1,407,032,148
Wood and Paper Products—							
1917.....	7,263	536,320,247	152,277	113,359,997	148,277,935	245,372,487	393,650,422
1920.....	7,881	774,937,232	144,391	172,368,578	309,813,724	417,256,115	727,069,839
1929 ²	7,392	1,151,463,962	164,572	192,088,948	313,797,201	381,485,477	724,972,308
1933.....	7,891	892,652,622	105,080	102,218,652	134,663,641	184,233,540	341,336,701
1939.....	8,538	960,804,672	144,782	165,287,455	246,292,820	303,662,441	579,892,183
1944.....	10,452	"	189,674	284,436,559	497,656,158	550,826,986	1,093,725,822
1946.....	11,994	"	224,121	366,049,562	679,343,485	749,055,011	1,484,436,122
1948.....	13,806	"	256,938	534,656,794	1,013,842,292	1,124,398,167	2,215,985,062
1949.....	15,868	"	262,835	579,896,808	1,061,229,176	1,184,539,519	2,325,304,849
1950.....	15,991	"	269,565	631,185,730	1,193,849,612	1,385,084,133	2,665,764,505
Iron and Its Products—							
1917.....	1,495	695,677,552	161,745	161,875,424	378,193,116	371,792,489	749,985,605
1920.....	1,789	726,371,335	164,087	231,695,911	377,499,134	411,875,057	789,374,191
1929 ²	1,224	826,063,942	142,772	203,740,658	405,818,468	367,465,582	790,726,338
1933.....	1,334	614,632,403	73,348	72,296,179	98,793,191	109,198,169	216,828,992
1939.....	1,394	697,893,720	121,041	158,559,728	262,292,781	275,774,796	553,468,880
1944.....	2,192	"	411,944	818,452,454	1,104,083,922	1,390,703,087	2,540,992,974
1946.....	2,358	"	249,279	475,812,983	635,344,199	735,459,371	1,405,542,865
1948.....	2,548	"	269,776	652,953,714	1,076,895,019	1,123,685,663	2,253,777,033
1949.....	2,658	"	265,474	678,924,105	1,197,956,715	1,219,303,992	2,468,376,349
1950.....	2,698	"	265,952	723,387,597	1,330,651,901	1,360,211,239	2,748,215,232

For footnotes, see end of table.

3.—Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-50—concluded

Industrial Group and Year	Estab-lish-ments	Capital	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products ¹	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
Non-ferrous Metal Products—							
1917.....	296	69,421,911	18,220	15,898,890	46,445,469	41,039,351	87,484,820
1920.....	324	109,382,033	23,162	27,895,343	48,434,120	52,847,178	101,281,298
1929 ²	408	298,721,106	39,867	54,501,806	124,900,632	150,415,215	283,545,666
1933.....	478	266,266,443	25,273	28,099,026	71,990,608	88,427,984	164,765,604
1939.....	526	346,489,890	44,563	59,684,858	242,063,177	155,808,806	416,060,459
1944.....	635	3	104,314	182,909,292	549,317,062	399,498,519	992,345,975
1946.....	740	3	84,853	150,366,178	413,022,247	278,461,262	719,191,106
1948.....	817	3	99,921	230,892,260	736,583,447	489,559,766	1,270,323,433
1949.....	897	3	100,614	251,869,627	749,678,627	558,467,028	1,353,329,383
1950.....	918	3	104,942	274,869,661	866,997,815	626,675,566	1,541,330,200
Non-metallic Mineral Products—							
1917.....	1,075	145,423,082	20,795	18,224,724	36,994,392	58,092,396	95,086,788
1920.....	846	215,281,921	25,500	32,351,764	69,856,558	80,205,472	150,062,030
1929 ²	843	316,692,818	29,257	38,958,390	112,573,103	99,065,847	229,774,300
1933.....	770	295,139,543	16,975	19,282,401	69,077,701	52,817,078	131,325,706
1939.....	809	290,865,285	23,026	30,067,934	107,979,292	85,511,631	208,166,781
1944.....	748	3	31,590	56,130,338	234,714,319	152,525,053	416,268,879
1946.....	910	3	36,493	63,848,640	240,485,869	173,638,196	446,484,682
1948.....	1,009	3	40,956	93,582,722	441,612,794	231,961,750	724,110,218
1949.....	1,097	3	42,691	104,377,854	469,437,193	261,691,705	780,188,518
1950.....	1,121	3	44,780	116,805,778	533,587,088	312,866,411	902,667,662
Chemicals and Allied Products—							
1917.....	539	175,836,690	56,153	51,505,484	99,068,092	131,381,995	230,450,087
1920.....	464	122,123,730	17,653	22,193,421	62,644,608	65,183,212	127,827,820
1929 ²	554	165,856,912	16,694	22,639,449	55,184,337	78,785,911	138,545,221
1933.....	696	153,900,930	15,397	18,738,629	34,271,864	55,594,284	92,820,761
1939.....	881	172,459,365	22,585	31,567,558	65,230,839	89,046,832	159,536,984
1944.....	981	3	81,822	137,422,977	390,412,749	355,260,598	733,569,232
1946.....	1,017	3	37,278	66,538,532	159,308,350	203,639,442	376,288,264
1948.....	1,026	3	39,548	89,325,771	293,041,874	268,818,222	579,827,509
1949.....	1,022	3	40,499	98,568,559	238,377,149	279,038,860	536,156,674
1950.....	1,018	3	40,683	104,639,318	267,492,443	310,877,528	599,843,963
Miscellaneous Industries—							
1917.....	473	33,179,930	10,584	7,504,199	11,958,675	15,662,241	27,620,916
1920.....	552	48,637,071	13,442	14,613,455	23,465,807	27,841,778	51,307,585
1929 ²	421	59,654,759	10,786	12,457,989	22,495,351	28,081,046	51,207,736
1933.....	459	33,554,083	8,351	7,810,976	9,497,751	14,083,738	24,138,927
1939.....	566	41,480,534	12,280	13,045,929	18,308,810	24,368,247	43,393,206
1944.....	665	3	25,542	41,304,732	66,967,507	84,159,068	152,484,083
1946.....	704	3	21,381	31,641,518	50,387,530	61,245,149	112,942,600
1948.....	802	3	22,857	41,977,079	49,919,929	77,728,242	129,272,854
1949.....	884	3	27,077	52,596,820	62,161,902	97,247,135	166,426,636
1950.....	985	3	27,071	56,115,334	66,568,169	99,126,357	167,902,954

¹ See footnote 1, Table 1.² See footnote 2, Table 1.³ Not collected.

The figures in Table 4 show the trends of development in Canadian manufacturing industries since 1917. Interesting comparisons may be made of power employed, values added by the manufacturing process per employee, average salaries and wages paid, etc.

4.—Significant Statistics of Manufactures for Certain Years, 1917-50

Item	1917	1920	1929 ¹	1933	1939
Establishments.....	No. 21,845	22,532	22,216	23,780	24,805
Totals, employees.....	" 606,523	598,893	666,531	468,658	658,114
Averages, per establishment.....	" 27.8	26.6	30.0	19.7	26.5
Totals, salaries and wages.....	\$ 497,801,844	717,493,876	777,291,217	436,247,824	737,811,153
Averages, per establishment.....	\$ 22,788	31,843	34,988	18,345	29,744
Averages, per employee.....	\$ 821	1,198	1,166	931	1,121

For footnotes, see end of table, p. 608.

4.—Significant Statistics of Manufactures for Certain Years, 1917-50—concluded

Item	1917	1920	1929 ¹	1933	1939
Employees on salaries.....No.	64,918	78,334	88,841	86,636	124,772
Averages, per establishment....."	3.0	3.5	4.0	3.6	5.0
Salaries.....\$	85,353,667	141,837,361	175,553,710	139,317,946	217,839,334
Averages, per salaried employee.....\$	1,315	1,811	1,976	1,608	1,746
Employees on wages.....No.	541,605	520,559	577,690	382,022	533,342
Averages, per establishment....."	24.8	23.1	26.0	16.1	21.5
Wages.....\$	412,448,177	575,656,515	601,737,507	296,929,878	519,971,819
Averages, per wage-earner.....\$	762	1,106	1,042	777	975
Cost of materials.....\$	1,539,678,811	2,085,271,649	2,029,670,813	967,788,928	1,836,159,375
Averages, per establishment.....\$	70,482	92,547	91,361	40,698	74,024
Averages, per employee.....\$	2,539	3,482	3,045	2,065	2,790
Values added in manufactures ²\$	1,281,131,980	1,621,273,348	1,755,386,937	919,671,181	1,531,051,901
Averages, per establishment ²\$	58,646	71,954	79,015	38,674	61,724
Averages, per employee ²\$	2,112	2,707	2,634	1,962	2,326
Gross value of products.....\$	2,820,810,791	3,706,544,997	3,883,446,116	1,954,075,785	3,474,783,528
Averages, per establishment.....\$	129,128	164,501	174,804	82,173	140,084
Averages, per employee.....\$	4,651	6,189	5,286	4,170	5,280
Power employed.....h.p.	1,658,475	2,068,875	3,855,648	4,135,008	5,045,287
Averages, per establishment....."	76	92	174	174	203
Averages, per wage-earner....."	3.06	3.97	6.67	10.82	9.46
	1944	1946	1948	1949	1950
Establishments.....No.	28,483	31,249	33,420	35,792	35,942
Totals, employees....."	1,222,882	1,058,156	1,155,721	1,171,207	1,183,297
Averages, per establishment....."	42.9	33.9	34.5	32.7	32.9
Totals, salaries and wages.....\$	2,029,621,370	1,740,687,254	2,409,368,190	2,591,890,657	2,771,267,435
Averages, per establishment.....\$	71,257	55,704	72,093	72,415	77,104
Averages, per employee.....\$	1,660	1,645	2,084	2,213	2,342
Employees on salaries.....No.	192,558	181,006	198,230	221,551	231,053
Averages, per establishment....."	6.8	5.8	5.9	6.2	6.4
Salaries.....\$	418,065,594	410,875,776	532,594,959	628,427,937	692,633,349
Averages, per salaried employee.....\$	2,171	2,270	2,686	2,836	2,998
Employees on wages.....No.	1,030,324	877,150	957,491	949,656	952,244
Averages, per establishment....."	36.2	28.1	28.6	26.5	26.5
Wages.....\$	1,611,555,776	1,329,811,478	1,876,773,231	1,963,462,720	2,078,634,086
Averages, per wage-earner.....\$	1,564	1,516	1,960	2,068	2,183
Cost of materials.....\$	4,832,333,356	4,358,234,766	6,632,881,628	6,843,231,064	7,538,534,532
Averages, per establishment.....\$	169,657	139,468	198,470	191,194	209,742
Averages, per employee.....\$	3,952	4,119	5,739	5,843	6,371
Values added in manufactures ²\$	4,015,776,010	3,467,004,980	4,938,786,981	5,330,566,434	5,942,058,229
Averages, per establishment ²\$	140,989	110,948	147,779	148,932	165,324
Averages, per employee ²\$	3,284	3,276	4,273	4,551	5,022
Gross value of products.....\$	9,073,692,519	8,035,692,471	11,875,169,685	12,479,593,300	13,817,526,381
Averages, per establishment.....\$	318,565	267,150	355,331	348,670	384,440
Averages, per employee.....\$	7,420	7,594	10,274	10,655	11,677
Power employed.....h.p.	6,468,439	6,783,949	8,159,414	"	"
Averages, per establishment....."	227	217	244	"	"
Averages, per wage-earner....."	6.28	7.73	8.52	"	"

¹ The method of computing the number of wage-earners in 1925-30, inclusive, increased the number somewhat over that which otherwise would have been given. There was, therefore, a proportionate reduction in the averages for 1925-30 per employee and wage-earner. In 1931 the method in force prior to 1925 was re-adopted.

² Net values of products; see footnote 1, Table 1.

³ Not collected.

Value and Volume of Manufacturing Production.—In the interpretation of manufacturing values over a number of years, variations in the level of prices must be borne in mind, especially when such variations have been as great as those in the period since the annual Census of Manufactures was begun in 1917. The index number of wholesale prices in Canada, on the 1926 base, compiled by the Dominion Bureau of Statistics, stood at 114.3 in 1917, 155.9 in 1920, 97.3 in 1922, 95.6 in 1929, 67.1 in 1933, 84.6 in 1937, 75.4 in 1939, 129.1 in 1947, 157.0 in 1949 and 166.1 in 1950. Index numbers of the prices of fully or chiefly manufactured goods on the same base were: 113.5 in 1917, 156.5 in 1920, 100.4 in 1922, 93.0 in 1929, 70.2 in 1933, 80.5 in 1937, 75.3 in 1939, 117.4 in 1947, 142.3 in 1949 and 148.9 in 1950.

Since real income is ultimately measured in goods and services, the growth of the volume of manufacturing production, as distinguished from its value, becomes a matter of great significance. The important thing to know is whether consumers are getting more goods and services, not whether they are expending more dollars and cents.

Indexes of the volume of manufacturing production, according to component material and purpose classifications, are given for 1929-46 in the 1951 Year Book, p. 585. The indexes for 1940 to 1946 are in process of revision and when this is completed indexes will be compiled for the later years.

Consumption of Manufactured Products.—The value of all manufactured products made available for consumption in 1949 was \$12,506,121,614, a figure obtained by adding to the value of manufactured products the value of the imports of manufactured and partly manufactured goods and deducting the value of exports. More accurate statistics could be presented were it possible to exclude the duplications involved when the products of one manufacturing establishment become the material worked upon in another. Iron, vegetable, wood and paper, textiles and animal products were, in that order, the leading groups in the value of finished products made available for consumption in 1949. Animal, wood and paper and non-ferrous metal products were also manufactured in greater quantities than required for home consumption, providing export balances in these groups. Canada in the past imported large quantities of iron and steel, textiles, chemicals and non-metallic mineral products despite large home production, but the expansion of the iron and steel, chemical and non-ferrous metal industries will enable Canada to meet more requirements for home consumption and to export greater quantities in the future.

5.—Consumption of Manufactured Products, Significant Years, 1929-49, and by Industrial Groups, 1949

Year and Industrial Group	Value of Products Manufactured	Manufactured and Partly Manufactured Goods ¹		Value of Manufactured Products Available for Consumption
		Value of Net Imports	Value of Domestic Exports	
	\$	\$	\$	\$
1929.....	3,883,446,116	939,130,201	686,876,071	4,135,700,246
1933.....	1,954,075,785	298,068,344	365,232,113	1,886,912,016
1939.....	3,474,783,528	542,364,930	646,853,938	3,370,294,520
1944.....	9,073,692,519	1,302,413,996	2,668,575,781	7,707,530,734
1945.....	8,250,368,866	1,117,544,874	2,352,441,796	7,015,471,944
1946.....	8,035,692,471	1,390,123,100	1,701,677,026	7,724,138,545
1947.....	10,081,026,580	1,928,250,119	2,124,740,343	9,884,536,356
1948.....	11,876,790,012	1,869,702,089	2,259,247,456	11,487,244,645
Industrial Group, 1949²				
Vegetable products.....	2,020,565,833	208,548,964	180,882,070	2,048,232,727
Animal products.....	1,543,930,584	35,899,847	127,515,056	1,452,315,375
Textile and textile products.....	1,290,314,474	235,421,446	23,857,906	1,501,878,014
Wood and paper products.....	2,325,304,849	82,137,555	827,305,826	1,580,136,578
Iron and its products.....	2,468,376,349	870,232,504	278,747,052	3,059,861,801
Non-ferrous metal products.....	1,353,329,383	151,466,135	347,147,113	1,157,648,405
Non-metallic mineral products.....	780,188,518	178,848,865	48,628,990	910,408,393
Chemicals and allied products.....	536,156,674	129,823,660	70,697,937	594,782,397
Miscellaneous industries.....	161,426,636	151,704,953	112,273,665	200,857,924
Totals, 1949.....	12,479,593,300	2,043,583,929	2,017,055,615	12,506,121,614

¹ Figures for the years 1929 and 1933 are for the fiscal years ended Mar. 31 of the following years; for 1939-49 they are for the calendar year. Net imports are total imports less foreign products re-exported.
² Consumption figures for the major groups of the Standard Industrial Classification cannot be calculated as statistics of imports and exports are still compiled on the component material classification basis.

Section 2.—Production by Industrial Groups and Individual Industries

As mentioned in the introduction to this Chapter, two major changes were adopted in the compilation of manufacturing statistics for 1949. In addition to containing statistics for Newfoundland for the first time, the system of classification was also changed. By the Standard Classification the industries are grouped under the 17 major headings listed in Table 6, instead of the nine groups listed in Table 3 which were formerly used as the main basis of classification. Summary statistics for the main groups on the new basis are given for 1945-50 in Table 7, while statistics for individual industries are presented in detail in Table 8. Table 10 gives the industries on the basis of the origin of the materials used.

Subsection 1.—Manufactures Classified on the Standard Classification Basis

Table 6 shows the changes in the nature of manufacturing production since the end of World War II with regard to numbers employed, salaries and wages paid, and gross value of products. The values of both wages and products are naturally more affected by price changes than the numbers of employees. Furthermore, during periods of curtailed production there is a tendency for wage-earners to be put on part time, while the number of salaried employees responds less quickly to reduction in output. Thus, variation in number of employees would normally be less pronounced than that in money values. The number of employees in 1944 increased by 86 p.c. over 1939, salaries and wages paid were 175 p.c. higher and the gross value of production 161 p.c. higher.

Significant changes in the nature of manufacturing production have taken place since 1945. As was to be expected, industries engaged in war production have operated at a substantially lower level and industries producing consumer goods have increased their production. From the point of view of employment, the chemical and allied products group, with a reduction of 33 p.c., experienced the greatest decline in volume of production between 1945 and 1949. Transportation equipment, which includes aircraft and shipbuilding, was second with a decline of 32 p.c., followed by tobacco and tobacco products with 12 p.c., rubber goods 12 p.c. and iron and steel products 3 p.c. The non-metallic mineral group reported the greatest gain in employment with an increase of 39 p.c., followed by printing, publishing and allied trades 31 p.c., wood products 29 p.c., electrical apparatus and supplies 27 p.c., products of petroleum and coal 26 p.c., paper products 21 p.c., textiles (except clothing) 19 p.c., clothing (textile and fur) 18 p.c., food and beverages 8 p.c., leather products 2 p.c. and non-ferrous metal products 1 p.c. For manufacturing as a whole there was an increase of 4 p.c. in the number of employees with an increase of 39 p.c. in the amount of salaries and wages paid. Although there was an increase of 50 p.c. in the gross value of production, the increase in the physical volume was not marked. This was due to the rise in the wholesale prices of fully and partly manufactured products.

6.—Percentage Variations in Employment, Salaries and Wages, and Gross Value of Products in the Main Industrial Groups, 1949 Compared with 1945 and with 1948

Industrial Group	1949 Compared with 1945			1949 Compared with 1948		
	Employees	Salaries and Wages	Gross Value of Products	Employees	Salaries and Wages	Gross Value of Products
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Food and beverages ¹	+8.1	+48.5	+49.5	+0.1	+6.3	+1.2
Tobacco and tobacco products....	-12.2	+39.1	+42.3	+2.2	+12.0	+12.0
Rubber products.....	-11.8	+23.2	-1.6	-4.5	-0.2	-8.0
Leather products.....	+2.3	+38.0	+25.6	+1.8	+8.3	+3.5
Textile products (except clothing)...	+18.9	+78.6	+65.1	+3.2	+11.5	+6.0
Clothing (textile and fur).....	+17.8	+57.1	+52.6	+2.3	+7.6	+2.5
Wood products ¹	+28.9	+86.7	+83.9	-3.3	+4.2	-0.4
Paper products ¹	+20.7	+80.5	+95.1	-3.4	+0.2	-1.3
Printing, publishing and allied trades ²	+31.2	+81.2	+84.1	+4.9	+13.0	+12.0
Iron and steel products.....	-3.4	+31.6	+49.0	-3.8	+3.1	+7.5
Transportation equipment.....	-32.4	-17.1	+2.8	+2.1	+5.4	+12.3
Non-ferrous metal products.....	+1.1	+39.9	+58.0	-1.9	+5.3	+2.7
Electrical apparatus and supplies...	+26.7	+70.5	+110.9	+3.8	+12.4	+14.2
Non-metallic mineral products....	+38.8	+96.0	+88.6	+3.2	+9.8	+6.2
Products of petroleum and coal....	+26.2	+73.7	+97.6	+6.4	+14.4	+8.5
Chemical products.....	-32.6	-6.0	+17.8	+4.5	+12.7	+1.3
Miscellaneous industries ³.....	...	...	...	...	...	...
Averages, All Groups^{1, 2}.....	+3.6	+39.2	+50.0	+0.8	+6.9	+4.5

¹ Exclusive of Newfoundland.

² Includes "Publishing (only) of Periodicals".

³ Due to the change of establishments from one industry to another, figures for 1949 are not comparable with previous years.

7.—Summary Statistics of Manufactures, by Industrial Groups, 1945-50

Industrial Group and Year	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Food¹ and Beverages—						
1945.....	8,872	156,396	224,908,882	1,336,820,028	558,247,045	1,921,774,601
1946.....	8,862	160,821	241,769,865	1,408,818,069	604,120,647	2,040,708,650
1947.....	8,869	167,865	276,245,015	1,656,529,086	695,092,932	2,383,975,675
1948.....	8,686	168,893	311,235,818	2,034,844,290	766,434,971	2,839,531,142
1949.....	8,558	170,024	332,536,319	2,009,246,062	834,017,547	2,882,581,753
1950.....	8,401	167,664	346,714,443	2,102,437,260	885,322,008	3,029,810,604
Tobacco and Tobacco Products—						
1945.....	86	12,164	15,738,041	79,176,519	42,985,992	122,543,932
1946.....	95	10,849	14,410,558	79,255,405	39,981,625	119,634,216
1947.....	91	10,880	16,234,772	97,121,002	49,221,094	146,793,011
1948.....	79	10,459	19,550,563	95,851,271	57,666,963	153,993,442
1949.....	72	10,686	21,896,378	113,357,196	58,529,226	172,420,213
1950.....	68	10,322	22,628,918	122,610,179	65,175,854	188,330,523
Rubber Products—						
1945.....	55	23,490	39,111,477	78,500,892	98,836,225	181,413,226
1946.....	60	22,055	37,813,363	62,135,578	93,451,248	159,408,113
1947.....	60	23,475	46,613,893	82,934,625	110,673,007	196,307,734
1948.....	56	21,703	48,273,015	84,223,731	106,999,669	194,111,934
1949.....	62	20,729	48,172,207	73,895,718	101,705,513	178,503,559
1950.....	61	21,812	54,262,864	101,773,382	134,061,761	239,184,510
Leather Products—						
1945.....	706	34,123	43,268,635	95,006,015	71,297,713	167,888,463
1946.....	776	37,290	49,712,628	108,702,945	82,319,495	192,749,456
1947.....	792	35,724	52,628,612	123,894,474	86,646,061	212,430,165
1948.....	757	34,291	55,122,863	114,819,233	86,947,703	203,755,501
1949.....	747	34,900	59,699,886	117,869,462	91,157,684	210,804,174
1950.....	747	32,990	57,809,677	121,217,195	87,419,427	210,563,013

¹ Exclusive of fish processing in Newfoundland.

7.—Summary Statistics of Manufactures, by Industrial Groups, 1945-50—continued

Industrial Group and Year	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Textile Products (except Clothing)—						
1945.....	664	66,011	88,372,939	217,289,281	165,689,522	391,182,025
1946.....	720	67,366	95,637,733	215,853,616	178,852,730	402,966,184
1947.....	747	73,979	116,228,736	289,986,732	215,170,493	514,844,838
1948.....	722	75,816	141,002,245	331,943,622	261,774,544	604,946,333
1949.....	847	77,773	156,166,554	339,644,950	285,641,367	636,824,130
1950.....	846	80,328	169,175,142	412,682,853	315,556,761	741,262,685
Clothing (Textile and Fur)—						
1945.....	2,676	99,959	131,478,496	251,899,847	222,307,384	476,754,319
1946.....	2,988	105,868	146,265,152	285,568,957	263,018,398	551,331,576
1947.....	3,121	110,329	166,951,727	311,018,817	300,527,093	614,594,703
1948.....	3,100	115,105	191,866,371	361,216,438	345,028,807	709,688,704
1949.....	3,058	117,752	206,512,782	371,128,833	352,741,236	727,498,836
1950.....	3,051	116,248	211,223,347	377,552,172	352,889,623	734,214,334
Wood Products—						
1945.....	7,656	93,209	119,833,932	240,482,275	208,979,657	454,447,165
1946.....	8,846	105,472	142,338,538	297,923,979	256,436,946	560,341,251
1947.....	9,744	120,434	186,467,946	398,854,196	365,050,223	771,409,332
1948.....	10,495	124,306	214,741,924	426,913,571	401,401,795	839,045,068
1949.....	11,191	121,632	224,902,644	436,637,453	393,928,758	840,355,634
1950.....	11,301	126,169	246,325,125	510,565,003	463,853,510	985,859,493
Paper Products—						
1945.....	475	60,819	109,627,174	255,265,326	241,121,150	536,859,861
1946.....	486	67,442	134,320,546	313,410,656	333,819,710	695,085,534
1947.....	502	73,445	168,632,394	410,456,570	443,374,435	911,238,813
1948.....	522	75,980	197,397,810	485,237,427	509,993,037	1,061,359,807
1949.....	524	76,471	208,348,621	494,300,501	532,288,636	1,093,060,326
1950.....	528	77,519	225,197,438	541,260,626	638,111,352	1,251,144,125
Printing, Publishing and Allied Trades—						
1945.....	2,312	43,565	74,257,775	52,655,848	132,385,988	186,945,134
1946.....	2,404	48,950	86,433,880	65,501,698	154,951,731	222,548,636
1947.....	2,458	52,096	101,611,652	82,585,466	178,667,051	263,632,152
1948.....	2,496	54,541	119,087,977	96,384,499	208,208,175	307,345,914
1949.....	3,866	61,834	141,489,984	124,684,351	250,162,704	377,908,182
1950.....	3,869	63,125	154,369,637	135,510,227	274,098,833	413,011,915
Iron and Steel Products—						
1945.....	1,903	169,278	313,966,173	395,624,098	527,473,688	952,482,150
1946.....	2,086	151,373	279,567,770	337,981,814	461,501,765	824,766,017
1947.....	2,200	162,399	334,044,246	451,289,335	580,342,444	1,064,654,410
1948.....	2,263	170,071	400,878,271	570,290,989	709,347,226	1,320,527,400
1949.....	2,347	163,622	413,227,563	619,499,256	760,934,249	1,419,145,725
1950.....	2,390	164,528	438,244,749	662,232,192	817,060,278	1,524,384,478
Transportation Equipment—						
1945.....	504	154,844	326,748,794	498,241,686	523,910,119	1,034,666,913
1946.....	539	100,745	200,097,765	301,206,839	279,333,127	590,128,311
1947.....	562	104,348	230,898,680	426,573,091	366,151,761	803,611,372
1948.....	578	101,816	255,504,526	509,910,825	419,133,597	941,483,906
1949.....	596	104,750	270,852,111	584,064,330	466,529,164	1,063,211,331
1950.....	601	104,176	290,436,378	674,833,465	552,171,399	1,239,579,727
Non-ferrous Metal Products—						
1945.....	436	44,221	81,889,942	337,872,041	180,653,076	548,853,026
1946.....	474	40,855	75,855,699	311,082,975	148,492,336	484,618,453
1947.....	503	43,344	91,046,568	454,517,197	201,162,856	668,074,514
1948.....	503	46,048	108,778,616	556,238,618	243,225,806	844,598,154
1949.....	532	44,698	114,591,106	537,218,214	289,125,045	867,043,028
1950.....	536	44,680	119,535,596	606,691,788	311,539,390	980,751,814
Electrical Apparatus and Supplies—						
1945.....	247	44,129	76,468,795	92,041,030	135,919,899	230,531,874
1946.....	266	43,998	74,510,479	101,939,272	129,968,926	234,572,653
1947.....	296	52,736	103,891,016	162,131,266	200,859,040	366,506,203
1948.....	314	53,873	122,113,644	180,344,829	241,333,960	425,725,279
1949.....	365	55,916	137,278,521	212,460,413	269,341,983	486,286,355
1950.....	382	60,262	155,334,065	260,306,027	315,136,176	580,578,386

1 Includes "Publishing (only) of Periodicals".

7.—Summary Statistics of Manufactures, by Industrial Groups, 1945-50—concluded

Industrial Group and Year	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Non-metallic Mineral Products—						
1945.....	700	20,269	32,959,877	41,488,955	76,318,456	130,704,796
1946.....	833	24,387	39,651,286	49,957,966	94,591,439	160,476,827
1947.....	863	26,443	50,456,143	66,266,546	115,277,990	201,786,910
1948.....	934	27,278	58,816,381	72,577,633	134,897,744	232,148,324
1949.....	1,020	28,139	64,594,354	78,401,065	143,872,615	246,457,799
1950.....	1,045	29,603	72,380,410	91,168,605	168,377,747	286,541,363
Products of Petroleum and Coal—						
1945.....	80	11,532	22,904,418	188,899,911	65,637,131	270,166,984
1946.....	77	12,106	24,197,354	190,527,903	79,046,757	286,007,855
1947.....	80	12,769	28,689,932	257,420,851	84,073,746	361,333,008
1948.....	75	13,678	34,766,341	369,035,161	97,064,006	491,961,894
1949.....	77	14,552	39,783,500	391,036,128	117,819,090	533,730,719
1950.....	76	15,177	44,425,368	442,418,483	144,488,664	616,126,299
Chemicals and Allied Products—						
1945.....	986	61,339	107,050,824	228,855,956	252,944,165	498,630,798
1946.....	1,031	38,012	67,842,339	179,749,719	208,399,498	401,741,703
1947.....	1,046	39,237	78,993,517	238,310,157	234,056,973	488,307,293
1948.....	1,026	39,548	89,325,771	293,041,874	268,818,222	579,827,609
1949.....	1,037	41,328	100,690,662	280,008,945	288,171,551	587,398,215
1950.....	1,033	41,475	106,794,403	307,705,741	317,166,711	646,870,510
Miscellaneous Industries—						
1945.....	692	24,024	37,187,275	83,549,139	59,608,689	144,523,599
1946.....	706	20,567	30,262,299	48,617,375	58,718,602	108,607,036
1947.....	800	22,247	36,291,117	44,390,608	65,708,603	111,532,447
1948.....	814	22,315	40,906,054	48,007,617	75,510,756	125,116,374
1949.....	893	26,401	51,147,475	59,778,187	94,600,066	156,363,321
1950.....	1,007	27,219	56,409,875	67,469,834	99,628,735	169,312,602

8.—Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949

Group and Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Food and Beverages—						
Bakery Products—						
Biscuits.....	52	6,715	10,608,646	28,561,885	30,315,272	59,635,709
Bread and other bakery products.....	2,730	31,763	57,552,745	102,555,311	94,717,220	203,720,116
Beverages—						
Aerated waters.....	484	7,812	14,599,204	32,069,188	51,716,093	85,656,395
Breweries.....	64	8,652	23,461,437	37,939,869	102,125,599	142,399,729
Distilled liquors.....	20	4,033	9,890,966	28,004,756	46,974,654	76,876,695
Wines.....	27	572	1,417,858	3,894,965	4,603,118	8,601,873
Canning and Processing—						
Fish processing ¹	599	11,856	16,969,825	69,090,041	41,140,022	111,961,148
Fruit and vegetable preparations.....	473	14,992	23,863,821	89,502,037	57,106,291	148,762,324
Dairy Products—						
Butter and cheese.....	1,862	22,479	41,612,537	274,298,757	74,705,184	355,004,031
Cheese, processed.....	22	825	1,673,818	16,083,227	6,534,673	22,698,780
Condensed milk.....	36	1,752	3,460,171	41,931,415	11,341,669	54,704,772
Dairy products, other.....	42	750	1,404,077	4,880,772	3,694,567	8,816,590
Grain Mill Products—						
Feeds, stock and poultry, prepared.....	485	5,356	10,889,537	125,645,640	24,361,413	151,470,360
Feed mills.....	714	1,549	1,938,647	43,202,439	4,820,592	48,488,781
Flour mills.....	133	5,083	11,965,400	215,404,869	28,342,755	245,274,202
Foods, breakfast.....	201	1,154	2,554,955	8,702,820	9,418,397	18,411,631

¹ Exclusive of fish processing in Newfoundland.

8.—Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949—continued

Group and Industry	Estab-lish-ments	Em-employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Food and Beverages—						
concluded						
Meat Products—						
Animal oils and fats.....	11	214	509,901	935,105	849,100	1,905,275
Sausage and sausage casings	75	774	1,423,775	8,260,322	2,730,967	11,140,598
Slaughtering and meat-packing.....	157	20,586	52,138,180	586,241,637	108,059,068	697,950,039
Miscellaneous Food Industries—						
Confectionery.....	206	10,317	17,107,649	51,001,165	47,401,925	99,424,355
Sugar refining.....	11	3,587	8,842,783	90,172,181	23,703,295	116,767,430
Macaroni and kindred products.....	16	552	1,104,316	3,423,153	2,382,376	5,903,133
Malt and malt products....	13	695	1,911,396	22,653,080	7,940,511	31,514,024
Starch and glucose.....	9	1,028	2,317,354	10,073,726	5,646,150	16,519,219
Miscellaneous foods, <i>n.e.s.</i> ...	297	6,978	13,319,291	114,717,702	43,386,636	158,974,544
Totals, Food¹ and Beverage.	8,558	170,024	332,536,319	2,009,246,062	834,017,547	2,882,581,753
Tobacco and Tobacco Products—						
Tobacco, cigars and cigarettes	57	9,029	19,028,381	59,319,660	53,641,340	113,334,066
Tobacco, processing and packing.....	15	1,657	2,867,997	54,037,536	4,887,886	59,086,147
Totals, Tobacco and Tobacco Products.....	72	10,686	21,896,378	113,357,196	58,529,226	172,420,213
Rubber Products—						
Rubber goods (including footwear).....	62	20,729	48,172,207	73,895,718	101,705,513	178,503,559
Totals, Rubber Products...	62	20,729	48,172,207	73,895,718	101,705,513	178,503,559
Leather Products—						
Footwear, leather.....	284	22,290	36,733,243	61,023,445	54,956,420	116,514,520
Gloves and mittens, leather..	79	2,051	2,766,459	4,840,484	4,495,482	9,383,529
Leather tanning.....	70	4,573	10,295,023	37,409,211	15,950,581	54,348,438
Belting, leather.....	16	208	388,127	1,049,869	591,117	1,661,882
Boot and shoe findings, leather.....	26	417	785,288	1,638,472	1,260,720	2,940,713
Miscellaneous leather goods..	272	5,361	8,731,746	11,907,981	13,903,364	25,955,092
Totals, Leather Products...	747	34,900	59,699,886	117,869,462	91,157,684	210,804,174
Textile Products (except Clothing)—						
Cotton Goods—						
Cotton thread.....	6	883	1,551,421	5,325,619	3,633,627	9,053,634
Cotton yarn and cloth.....	53	25,178	49,363,696	124,685,279	83,073,026	211,384,517
Miscellaneous cotton goods.	10	600	1,391,039	4,321,310	2,406,769	6,813,639
Synthetic textiles and silk....	48	16,828	36,121,584	45,217,912	75,578,244	124,125,414
Woolen Goods—						
Carpets, mats and rugs....	23	1,741	3,821,714	6,482,467	7,922,363	14,621,269
Woolen cloth.....	89	10,036	19,031,918	35,701,320	31,983,486	68,985,257
Woolen yarn.....	49	3,921	7,251,566	18,633,070	11,434,453	30,487,847
Miscellaneous woollen goods	43	2,194	5,126,436	15,798,528	9,280,602	25,471,739
Other Primary Textiles—						
Dyeing and finishing of textiles.....	47	2,511	5,347,344	2,606,844	9,274,711	12,758,888
Narrow fabrics.....	42	2,090	3,797,405	5,320,806	6,476,290	11,950,068
Miscellaneous Textile Products—						
Awnings, tents and sails....	107	1,368	2,287,782	4,869,494	3,634,053	8,587,648
Bags, cotton and jute.....	34	1,262	2,210,994	23,274,040	4,397,869	27,754,602
Cordage, rope and twine....	10	1,302	2,805,837	10,732,750	5,999,147	16,917,938
Oilcloth, linoleum and other coated fabrics.....	14	2,309	6,053,518	15,657,655	12,092,566	28,170,145

¹ Exclusive of fish processing in Newfoundland.

8.—Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949—continued

Group and Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Textile Products (except Clothing)—concluded						
Miscellaneous Textile Goods—						
Automobile accessories, fabric.....	8	827	1,740,482	3,189,372	3,135,148	6,362,064
Embroideries, pleating, hemstitching, etc.....	129	1,711	2,902,264	2,011,338	4,866,301	6,910,115
Miscellaneous textiles, n.e.s..	135	3,012	5,361,554	15,817,146	10,452,712	26,469,346
Totals, Textile Products (except Clothing).....	847	77,773	156,166,554	339,644,950	285,641,367	636,824,130
Clothing (Textile and Fur)—						
Knitted Goods—						
Hosiery.....	113	11,353	20,194,998	19,099,844	35,079,759	54,809,523
Other knitted goods.....	177	15,089	23,754,297	45,602,977	41,592,041	88,209,552
Men's, Women's and Child- ren's Clothing—						
Clothing, children's factory	144	5,165	7,602,196	14,932,211	12,872,063	27,893,656
Clothing, men's factory....	565	33,298	57,343,483	121,485,389	98,546,341	220,701,259
Clothing, women's factory..	890	29,129	55,424,392	105,156,893	96,791,010	202,412,558
Clothing contractors, men's	137	3,388	4,856,691	561,924	5,800,327	6,426,382
Clothing contractors, wom- en's.....	82	1,401	1,939,052	157,171	2,513,403	2,702,774
Miscellaneous Clothing—						
Corsets.....	37	3,456	4,818,813	7,101,529	9,235,931	16,389,008
Fur dressing and dyeing....	21	1,670	3,487,633	1,215,541	5,355,844	6,691,418
Fur goods.....	642	6,700	14,520,579	37,260,284	23,488,914	60,955,010
Gloves and mittens, fabric..	15	647	718,650	1,581,144	1,329,571	2,927,236
Hats and caps.....	163	4,760	9,004,917	11,268,684	14,742,262	26,244,201
Oiled and waterproofed clothing.....	14	439	798,473	1,987,702	1,910,485	3,906,089
Clothing, n.e.s.....	58	1,257	2,048,608	3,717,540	3,483,285	7,230,170
Totals, Clothing (Textile and Fur).....	3,058	117,752	206,512,782	371,128,833	352,741,236	727,498,836
Wood Products—						
Furniture.....	1,187	26,931	53,591,185	70,147,728	85,289,672	157,122,632
Saw and Planing Mills—						
Flooring, hardwood.....	26	1,623	3,241,003	6,637,585	5,983,939	12,762,908
Sash, door and planing mills	1,501	18,171	33,872,726	80,408,276	55,498,422	137,717,568
Sawmills.....	7,460	55,032	97,449,091	205,935,217	186,120,981	396,415,201
Veneers and plywoods.....	40	5,830	12,139,138	19,813,773	22,849,894	43,078,031
Miscellaneous Wood Prod- ucts—						
Boxes and baskets, wood..	188	4,276	6,986,658	10,393,079	10,988,513	21,709,944
Coffins and caskets.....	60	1,352	2,432,473	3,067,483	3,873,892	7,030,475
Other Miscellaneous Wood Industries—						
Beekkeepers' and poultry- men's supplies.....	12	81	121,801	228,827	313,535	559,411
Cooperage.....	183	955	1,564,595	3,206,585	2,192,176	5,478,156
Excelsior.....	11	184	273,619	289,981	420,388	731,371
Lasts, trees and shoe find- ings.....	18	679	1,156,867	874,647	1,766,130	2,670,198
Woodenware.....	36	648	992,308	1,022,826	1,382,930	2,447,774
Wood turning.....	84	1,482	2,413,037	2,673,113	3,209,629	5,989,903
Miscellaneous wood prod- ucts, n.e.s.....	385	4,388	8,668,143	31,938,333	14,038,707	46,642,062
Totals, Wood Products.....	11,191	121,632	224,902,644	436,637,453	393,928,758	840,355,634
Paper Products—						
Boxes and bags, paper.....	174	12,763	25,513,079	72,113,972	47,333,714	120,321,918
Pulp and paper.....	123	52,050	157,703,868	348,662,719	423,375,527	836,148,393
Roofing paper.....	23	2,477	5,654,753	17,079,261	18,710,738	36,359,885
Miscellaneous paper goods....	204	9,181	19,476,921	56,444,549	42,868,657	100,230,130
Totals, Paper Products.....	524	76,471	208,348,621	494,300,501	532,288,636	1,093,060,326

8.—Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949—continued

Group and Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Printing, Publishing and Allied Industries—						
Commercial Printing—						
Printing and bookbinding..	1,530	22,029	47,147,222	42,773,222	76,974,961	120,822,790
Trade composition.....	43	643	1,827,757	304,610	2,758,337	3,090,832
Engraving, Stereotyping and Allied Industries—						
Engraving, stereotyping and electrotyping.....	114	4,266	12,424,250	4,522,131	18,177,701	22,938,034
Lithography.....	63	3,952	9,617,355	10,639,915	17,287,882	28,083,005
Printing and Publishing—						
Printing and publishing....	784	26,272	63,550,242	48,877,899	118,825,355	169,268,479
Publishing (only) of periodicals.....	1,332	4,672	6,923,158	17,566,574	16,138,468	33,705,042
Totals, Printing, Publishing and Allied Industries..	3,866	61,834	141,489,984	124,684,351	250,162,704	377,908,182
Iron and Steel Products—						
Agricultural implements....	79	16,588	44,219,589	95,685,026	79,192,612	176,970,283
Boilers and plate work.....	56	6,642	17,980,051	20,156,193	33,602,254	54,562,093
Bridge building and structural steel.....	29	7,149	18,576,533	30,936,308	43,953,532	75,692,234
Castings, iron.....	231	18,339	46,165,355	55,315,454	74,880,824	133,313,505
Hardware, tools and cutlery..	281	12,226	27,377,079	23,915,194	51,075,063	76,409,023
Heating and cooking apparatus.....	103	8,745	19,810,926	23,519,492	38,035,621	62,420,269
Machine shops.....	546	6,027	12,840,235	8,465,249	19,129,335	28,161,691
Machine tools.....	9	1,356	3,405,031	2,198,298	5,360,747	7,665,025
Machinery, household, office and store.....	61	9,235	21,998,066	40,133,876	44,057,185	84,879,966
Machinery, industrial.....	296	19,479	48,248,262	48,389,379	97,927,235	148,156,612
Primary iron and steel.....	55	29,097	82,958,229	147,229,391	136,152,628	305,734,984
Sheet metal products.....	275	16,414	39,304,865	84,810,689	70,098,369	156,717,444
Wire and wire goods.....	102	7,206	18,454,608	23,729,156	46,545,237	71,434,083
Miscellaneous iron and steel products.....	224	5,119	11,888,724	15,015,551	20,923,607	37,028,516
Totals, Iron and Steel Products.....	2,347	163,622	413,227,553	619,499,256	760,934,249	1,419,145,725
Transportation Equipment—						
Aircraft and parts.....	14	10,725	27,443,498	24,315,084	35,713,975	61,099,075
Bicycles and parts.....	13	1,235	2,861,655	4,056,836	4,230,557	8,429,219
Boat building.....	221	1,543	2,648,525	2,317,465	3,343,870	5,771,913
Carriages, wagons and sleighs	64	1,355	2,507,034	3,289,406	4,815,551	8,208,794
Motor-vehicles.....	15	27,022	76,684,328	300,705,398	182,055,285	485,756,877
Motor-vehicle parts.....	150	17,898	45,662,602	88,040,691	81,194,554	171,590,042
Railway rolling-stock.....	39	32,410	82,135,159	133,053,860	109,228,718	246,754,026
Shipbuilding.....	80	12,562	30,909,310	28,285,590	45,946,654	75,601,385
Totals, Transportation Equipment.....	596	104,750	270,852,111	594,064,330	466,529,164	1,063,211,331
Non-ferrous Metal Products—						
Aluminum products.....	80	5,826	13,905,579	24,606,582	26,129,686	51,703,609
Brass and copper products....	162	9,389	22,943,888	73,045,193	40,700,161	115,407,796
Jewellery and silverware....	209	6,219	13,160,094	26,878,852	23,587,014	50,757,460
Non-ferrous metal smelting and refining.....	16	19,150	55,133,065	380,275,977	181,907,847	599,188,135
White metal alloys.....	47	3,428	7,843,173	30,643,550	14,130,235	45,478,527
Miscellaneous non-ferrous metal products.....	18	686	1,605,307	1,768,060	2,670,102	4,507,501
Totals, Non-ferrous Metal Products.....	532	44,698	114,591,106	537,218,214	289,125,045	867,043,028

8.—Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949—continued

Group and Industry	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Electrical Apparatus and Supplies—						
Batteries.....	24	2,140	5,232,393	18,509,992	12,367,069	31,167,039
Machinery, heavy electrical..	46	19,490	51,522,690	63,755,040	92,767,507	158,150,426
Radios and radio parts.....	61	7,363	16,555,750	23,941,389	27,157,841	51,466,388
Refrigerators, vacuum cleaners and appliances.....	89	7,327	16,999,953	40,784,883	43,104,053	84,494,340
Electrical apparatus and supplies, n.e.s.....	145	19,596	46,967,735	65,469,109	93,945,513	161,008,162
Totals, Electrical Apparatus and Supplies.....	365	55,916	137,278,521	212,460,413	269,341,983	486,286,355
Non-metallic Mineral Products—						
Abrasives, artificial.....	18	2,543	6,830,763	10,649,694	14,868,217	27,700,008
Asbestos products.....	14	1,533	3,637,864	4,794,030	5,087,506	10,343,009
Cement.....	8	1,731	4,803,534	5,949,640	21,077,322	35,065,152
Cement products.....	423	4,348	8,747,616	14,076,293	17,595,233	32,693,645
Clay products from domestic clay.....	124	3,717	8,331,127	557,622	14,076,742	17,981,709
Clay products from imported clay.....	40	2,356	5,332,757	3,526,190	10,184,375	14,457,162
Glass and glass products.....	102	5,854	13,126,027	16,607,403	22,932,161	42,398,329
Gypsum products.....	10	997	2,221,775	7,351,280	7,596,596	15,699,763
Lime.....	42	1,079	2,600,078	718,893	8,223,272	11,796,002
Salt.....	12	715	1,613,072	1,205,317	4,716,723	6,621,433
Sand-lime brick.....	5	184	415,844	330,906	966,808	1,380,739
Stone products.....	163	2,053	4,542,522	6,095,824	10,646,425	17,449,330
Miscellaneous non-metallic mineral products.....	59	1,029	2,391,375	6,537,973	5,901,235	12,871,468
Totals, Non-metallic Mineral Products.....	1,020	28,139	64,594,354	78,401,065	143,872,615	246,457,799
Products of Petroleum and Coal—						
Coke and gas products.....	30	5,139	13,641,224	54,063,072	34,847,993	96,934,506
Petroleum products.....	47	9,413	26,142,276	336,973,056	82,971,097	436,796,213
Totals, Products of Petroleum and Coal.....	77	14,552	39,783,500	391,036,128	117,819,090	533,730,719
Chemicals and Allied Products—						
Acids, alkalis and salts.....	28	5,861	16,504,908	27,392,521	39,663,922	74,411,796
Fertilizers.....	32	3,269	9,004,943	31,671,468	33,984,199	67,428,067
Medicinal and pharmaceutical preparations.....	218	7,658	16,116,592	22,900,555	48,008,393	71,502,135
Paints, varnishes and lacquers.....	112	6,035	14,137,815	42,427,832	39,810,432	82,860,500
Primary plastics.....	14	1,286	3,496,087	10,897,184	9,663,717	21,022,219
Soaps, washing compounds and cleaning preparations..	143	3,637	9,373,882	31,029,359	30,405,120	62,398,211
Toilet preparations.....	94	1,720	3,008,556	7,088,024	11,885,321	19,047,435
Vegetable oils.....	15	829	2,122,103	41,631,796	9,132,691	51,241,541
Miscellaneous Chemical Industries—						
Adhesives.....	25	749	1,727,848	4,218,359	3,266,366	7,824,564
Coal tar distillation.....	11	415	1,166,863	4,786,640	3,996,837	9,332,787
Gases, compressed.....	48	1,223	3,230,904	1,979,160	9,680,161	12,091,176
Inks.....	32	704	1,968,794	4,002,313	4,874,039	8,939,638
Polishes and dressings.....	57	797	1,655,980	5,918,662	5,868,884	11,865,149
Miscellaneous chemical products.....	208	7,145	17,175,387	44,065,072	37,931,469	87,432,997
Totals, Chemicals and Allied Products.....	1,037	41,328	100,690,662	280,008,945	288,171,551	587,398,215

8.—Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949—concluded

Group and Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Miscellaneous Industries—						
Brooms, brushes and mops..	86	2,420	4,232,249	6,327,016	8,389,198	14,831,989
Fountain pens and pencils....	15	1,221	2,328,167	2,972,524	6,657,965	9,673,710
Musical instruments.....	27	1,180	2,413,584	2,223,920	3,968,516	6,279,970
Plastic products.....	90	2,901	5,178,760	8,091,506	8,833,277	17,145,586
Scientific and professional equipment.....	91	4,781	10,984,607	13,895,560	19,003,378	33,188,093
Sporting goods.....	64	2,013	3,628,637	3,627,429	4,926,140	8,654,085
Toys and games.....	56	1,448	2,645,957	3,691,073	4,277,234	8,050,733
Typewriter supplies.....	7	396	885,086	1,916,789	1,921,239	3,864,264
Miscellaneous Industries—						
Artificial flowers and feath- ers.....	38	677	915,935	1,133,009	1,570,532	2,716,302
Buttons, buckles and fast- eners.....	34	1,682	3,374,644	3,115,444	4,821,028	8,006,070
Candles.....	14	278	461,873	828,911	1,260,764	2,120,738
Hair goods.....	17	151	291,137	805,657	488,079	1,298,749
Ice, artificial.....	69	894	1,810,364	173,687	5,116,274	5,802,435
Lamps, electric, and lamp shades.....	45	1,078	1,828,258	2,761,502	3,187,711	5,993,189
Pipes, lighters and other smokers' supplies.....	13	449	857,228	1,491,100	2,334,022	3,841,463
Signs, electric, neon and other.....	49	1,369	3,146,480	2,119,144	6,156,257	8,432,229
Stamps and stencils, rubber and metal.....	45	601	1,250,754	592,843	1,826,826	2,444,595
Statuary, art goods and novelties.....	104	1,017	1,614,462	1,647,983	2,606,600	4,282,853
Umbrellas.....	6	177	274,820	557,869	545,398	1,105,031
Miscellaneous industries, n.e.s.....	23	1,668	3,024,473	1,805,221	6,709,628	8,621,237
Totals, Miscellaneous In- dustries.....	893	26,401	51,147,475	59,778,187	94,600,066	156,363,321
Grand Totals.....	35,792	1,171,207	2,591,890,657	6,843,231,064	5,330,566,434	12,479,593,300

Table 9 gives the amount and value of each of the principal commodities produced by the manufacturing industries of Canada. Commodities produced in small quantities are not included but the list covers approximately 75 p.c. of total production.

9.—Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries, grouped by Purpose, 1949

Group and Commodity	Unit of Measure	Quantity	Value
Food—			\$
Biscuits, all kinds.....	...	..	55,587,247
Bread, pies, cakes, etc.....	...	..	182,702,717
Butter, factory made.....	lb.	282,197,364	166,095,638
Cheese, factory made.....	"	161,662,295	53,008,104
Confectionery, all kinds.....	...	..	76,144,614
Cream, sold in dairy factories.....	lb.	31,905,999	31,668,026
Feed, chopped, grain.....	ton	1,201,900	68,225,087
Feeds, stock and poultry.....	ton	1,718,278	127,479,149
Fish, canned and otherwise prepared.....	...	..	57,927,034 ¹
Flour, wheat.....	bbl.	20,302,173	188,615,480
Fruits and vegetables, canned.....	lb.	528,800,625	57,930,983
Fruits and vegetables, frozen.....	"	25,842,927	4,728,257
Ice cream, factory made.....	gal.	23,491,607	34,585,662
Jams, jellies and marmalades.....	lb.	88,700,259	13,874,541
Lard.....	"	74,954,275	18,877,006
Meats, canned, including poultry, pastes, etc.....	"	59,212,477	24,442,477
Meats, cooked.....	"	37,364,343	20,457,828

¹ Exclusive of Newfoundland.

**9.—Quantities and Values of the Principal Commodities Produced by the
Manufacturing Industries, grouped by Purpose, 1949—continued**

Group and Commodity	Unit of Measure	Quantity	Value
			\$
Food—concluded			
Meats, cured.....	lb.	264,808,186	121,790,243
Meats, sold fresh.....	"	1,056,119,942	358,810,842
Meats, sold frozen.....	"	67,891,456	21,293,881
Milk, evaporated and condensed.....	"	269,764,849	31,212,699
Milk, sold in dairy factories.....	gal.	151,690,685	95,729,114
Pickles, sauces and catsup.....	"	"	11,868,442
Powders, edible.....	lb.	133,761,266	32,823,092
Sausage, fresh and cured.....	"	72,838,464	27,842,701
Shortening.....	"	125,166,704	32,839,030
Sugar, granulated (cane and beet).....	"	1,181,963,023	96,680,698
Tea and coffee, roasted, blended and packed.....	"	118,128,262	79,884,967
Drink and Tobacco—¹			
Aerated waters.....	gal.	101,387,544	73,343,394
Beer, ale, stout and porter (sales).....	"	173,294,151	228,333,919
Cigarettes.....	'000	17,053,442	255,713,618
Cigars.....	"	207,213	15,538,813
Spirits, potable, sold (net sales).....	Pr. gal.	8,841,888	60,761,289
Tobacco, chewing, smoking and snuff.....	lb.	28,890,160	52,669,914
Tobacco, raw leaf, processed.....	"	113,178,509	59,091,614
Wine, sold.....	gal.	4,287,181	9,267,210
Clothing—			
Coats and overcoats, men's, youths' and women's, cloth.....	No.	2,548,253	63,945,778
Coats, fur and fur-lined.....	"	222,347	47,689,374
Coats, short (including windbreakers, mackinaws, parkas, leather coats, etc.).....	"	216,076	18,291,812
Dresses, women's and misses'.....	"	13,460,574	70,891,779
Footwear, leather.....	pr.	29,271,714	105,662,941
Footwear, rubber.....	"	15,039,073	29,736,753
Gloves and mittens, all kinds.....	"	"	14,467,175
Hats and caps, men's and boys'.....	doz.	590,647	10,551,496
Hats, women's and children's.....	"	444,236	12,695,819
Hosiery, all kinds.....	doz. pr.	9,023,966	59,401,946
Shirts, fine, work and sport.....	doz.	1,672,356	40,701,928
Sport suits, slacks and other sport clothing, n.e.s.....	"	"	14,690,776
Suits, men's and youths', fine woollen.....	No.	1,872,080	54,630,275
Underwear.....	doz.	4,218,055	36,102,947
Personal Utilities—			
Bags, hand and hand luggage.....	"	"	12,193,474
Jewellery.....	"	"	16,808,945
Pianos, organs and parts.....	"	"	4,456,782
Plated ware, all kinds.....	"	"	15,582,977
Radio sets and accessories.....	"	"	45,547,794
Soap.....	"	"	38,617,370
Sporting goods.....	"	"	10,212,349
Toilet preparations and perfumes.....	"	"	21,245,160
Toys and games.....	"	"	12,265,836
House Furnishings—			
Blankets, all kinds.....	"	"	11,380,124
Brooms and brushes.....	"	"	12,774,138
Carpets, mats and rugs.....	"	"	14,170,686
Furniture, household, including beds and couches.....	"	"	82,579,434
Kitchenware.....	"	"	18,427,711
Mattresses.....	No.	1,008,590	15,236,077
Mops.....	"	"	1,969,475
Springs, bed and other furniture.....	"	"	11,303,356
Stoves, coal, wood, electric and gas.....	"	"	43,358,950
Books and Stationery—			
Advertising matter, printed.....	"	"	28,356,336
Books and catalogues, printed.....	"	"	20,467,464
Circular letters, bank notes, etc., printed.....	"	"	21,432,495
Periodicals, printed by publishers—	"	"	
Gross revenue from advertising.....	"	"	117,853,102
Subscriptions and sales.....	"	"	52,986,028
Periodicals, printed for publishers.....	"	"	19,548,734
Sheet forms, commercial, printed.....	"	"	28,907,313

¹ Includes excise taxes on tobacco products and prime cost of spirits.

9.—Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries, grouped by Purpose, 1949—concluded

Group and Commodity	Unit of Measure	Quantity	Value
			\$
Transportation Equipment—			
Aircraft, including parts and repairs.....	...	..	46,576,036
Automobile parts and accessories, including tires, etc.....	...	..	303,693,064
Automobiles, commercial.....	No.	98,331	136,747,124
Automobiles, passenger.....	"	183,999	271,391,842
Buses.....	"	725	10,072,680
Railway locomotives and parts.....	...	..	57,772,053
Ships and ship repairs.....	...	..	80,414,899
Miscellaneous, including bicycles, boats, canoes, etc.....	...	..	8,452,375
Miscellaneous—			
Abrasives, artificial.....	...	..	7,628,832
Bags, cotton and jute.....	doz.	8,915,893	25,010,916
Bags, paper.....	...	..	25,898,156
Bars, iron and steel, hot rolled.....	ton	532,092	49,414,874
Batteries, electric, and parts.....	...	..	25,777,870
Blooms, billets and slabs.....	net ton	386,924	23,603,686
Boilers, heating and power.....	...	..	14,020,398
Boxes, paper and wood.....	...	..	104,332,544
Calcium and sodium compounds.....	...	..	26,471,243
Cans, metal, for food, etc.....	...	..	48,090,098
Castings, iron (made for sale).....	ton	239,365	39,579,120
Coke.....	...	..	54,814,362
Cotton fabrics.....	...	..	120,856,409
Enamels, lacquers and varnishes.....	...	..	35,522,721
Explosives.....	...	..	14,397,376
Farm implements and parts.....	...	..	169,617,000
Forgings, steel and other.....	...	..	10,131,340
Gas, sold.....	M cu. ft.	24,687,925	27,205,696
Gases, compressed and liquefied.....	...	..	16,458,710
Gasoline.....	imp. gal.	1,440,466,532	234,153,039
Glass, pressed and blown.....	...	..	27,443,102
Hardware, builders' and other.....	...	..	27,093,951
Leather, shoe.....	...	..	40,529,653
Lumber, rough and planed.....	M ft. b.m.	6,992,829	410,007,684
Machinery, industrial, household and business, and parts.....	...	..	380,891,280
Medicines and pharmaceuticals.....	...	..	63,676,689
Oil, fuel.....	imp. gal.	1,335,092,046	112,574,373
Paints, mixed, ready for use.....	gal.	9,456,527	33,486,466
Paper boards.....	...	..	91,273,938
Paper, newsprint, wrapping and book.....	...	..	513,293,455
Pipes and fittings, iron and steel.....	...	..	51,837,227
Plastics, primary.....	...	..	21,022,219
Pulp, wood, made for sale.....	short ton	1,870,483	194,647,859
Refrigerators, electric.....	No.	210,988	38,434,554
Rolled iron and steel forms, semi-finished (sold).....	ton	396,924	23,603,686
Sash, doors and other millwork.....	...	..	52,867,525
Scientific and professional equipment.....	...	..	33,188,093
Sheets, hoops, bands, strips, etc., iron and steel.....	ton	469,236	55,384,553
Smelter and refinery products.....	...	..	509,138,135
Spun rayon fabrics and mixtures.....	yd.	28,473,682	21,314,131
Steel ingots and castings (sold).....	ton	234,218	36,372,735
Steel shapes erected, bridge, etc.....	...	..	44,350,155
Steel shapes, structural, made in primary mills.....	net ton	177,314	13,940,920
Synthetic yarn fabrics, continuous filament, including mixtures.....	yd.	84,914,625	60,362,591
Tire fabrics.....	lb.	21,164,848	14,199,622
Tools, hand, all kinds.....	...	..	21,990,548
Twine and rope.....	...	..	18,622,662
Wire, wire rope and cable, steel.....	...	..	23,977,612
Wires and cables, electrical.....	...	..	85,775,125
Woolen cloth, woven and other.....	yd.	24,763,853	58,503,578
Yarn, cotton, artificial silk, wool, etc. (made for sale).....	lb.	97,987,401	97,503,843

Subsection 2.—Manufactures Classified by Origin of Materials

The distinction made between farm materials of Canadian and of foreign origin is based on whether materials are indigenous to Canada rather than on their actual source. Thus, the industries included in the foreign origin classes are those depending upon materials that cannot be grown in Canada, such as tea, coffee, spices, cane sugar, rice, rubber, cotton, etc. Industries included in the Canadian origin classes may, however, be using large quantities of imported materials.

The mineral origin group includes, in addition to non-ferrous metals so largely produced in Canada, the manufactures of iron and steel, of petroleum, and of other mineral substances, the raw materials for which are very largely imported. Products of mineral origin, with the exception of fuels, are nearly all durable goods. A high standard of living and advanced industrial organization is usually indicated by a relatively large production and consumption of mineral products. During periods of depression when the production of capital goods is curtailed, employment in the industries of the farm group, which produce mainly consumer goods, exceeds that of the mineral group. The industries of the mineral group in 1949 employed the largest number of persons and paid out by far the highest amount in salaries and wages. The average salary and wage was \$2,527 for the mineral group and \$1,946 for the farm origin group.

10.—Principal Statistics of Manufacturing Industries, classified according to Origin of Material Used, by Main Groups, 1939, 1944, 1948 and 1949

Year and Origin of Materials Used	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1939						
Farm origin.....	10,203	220,210	217,724,965	778,250,125	491,620,133	1,289,993,021
Mineral origin.....	3,474	210,752	280,054,303	669,728,573	598,024,704	1,321,444,094
Forest origin.....	8,430	142,091	160,798,500	244,944,997	297,563,280	572,335,960
Marine origin.....	523	5,369	3,638,794	18,114,698	10,311,304	28,816,536
Wildlife origin.....	384	4,604	5,396,623	11,592,066	8,261,880	19,961,526
Mixed origin.....	1,791	75,088	70,197,968	113,528,916	125,280,600	242,232,391
Grand Totals, 1939.....	24,805	658,114	737,811,153	1,836,159,375	1,531,051,901	3,474,783,528
Farm Origin Group—						
From field crops.....	6,096	124,708	126,311,033	410,994,461	335,287,457	759,964,866
From animal husbandry.....	4,107	95,502	91,413,932	367,255,664	156,332,676	530,028,155
Totals, Farm Origin.....	10,203	220,210	217,724,965	778,250,125	491,620,133	1,289,993,021
Canadian origin.....	9,382	171,460	168,260,771	630,779,223	366,146,937	1,011,294,132
Foreign origin.....	821	48,750	49,464,194	147,470,902	125,473,196	278,698,889
1944						
Farm origin.....	10,329	287,756	394,716,309	1,781,014,374	870,995,104	2,688,731,415
Mineral origin.....	4,479	634,542	1,208,779,764	2,258,796,792	2,312,260,844	4,708,104,244
Forest origin.....	10,347	186,680	278,171,969	495,531,476	541,521,976	1,082,160,284
Marine origin.....	535	9,664	10,327,695	45,906,562	22,066,801	68,882,879
Wildlife origin.....	535	6,190	9,430,191	28,076,572	15,728,926	43,985,177
Mixed origin.....	2,258	98,050	128,195,442	223,007,600	253,202,359	481,828,520
Grand Totals, 1944.....	28,483	1,222,882	2,029,621,370	4,832,333,356	4,015,776,010	9,073,692,519
Farm Origin Group—						
From field crops.....	6,307	164,514	226,751,705	888,435,918	563,349,320	1,477,008,962
From animal husbandry.....	4,022	123,242	167,964,604	892,578,456	307,645,784	1,211,722,453
Totals, Farm Origin.....	10,329	287,756	394,716,309	1,781,014,374	870,995,104	2,688,731,415
Canadian origin.....	9,493	225,077	303,293,749	1,507,501,822	668,958,344	2,202,655,904
Foreign origin.....	836	62,679	91,422,560	273,512,552	202,036,760	486,075,511
1948						
Farm origin.....	10,342	313,807	574,721,083	2,689,671,528	1,270,479,815	4,009,814,910
Mineral origin.....	5,347	450,123	1,070,530,553	2,481,092,279	2,087,179,940	4,733,867,173
Forest origin.....	13,692	252,764	523,340,720	1,009,794,821	1,108,347,100	2,195,670,856
Marine origin.....	600	12,243	17,041,373	74,587,625	39,468,334	115,838,169
Wildlife origin.....	636	8,045	16,601,882	45,073,772	27,130,785	72,510,617
Mixed origin.....	2,803	118,739	207,132,579	332,661,603	406,181,007	747,467,960
Grand Totals, 1948.....	33,420	1,155,721	2,409,368,190	6,632,881,628	4,938,786,951	11,875,169,685

10.—Principal Statistics of Manufacturing Industries, classified according to Origin of Material Used, by Main Groups, 1939, 1944, 1948 and 1949—concluded

Year and Origin of Materials Used	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1948—concluded						
Farm Origin Group—						
From field crops.....	6,331	177,251	330,556,836	1,414,340,575	829,429,377	2,276,770,345
From animal husbandry..	4,011	136,556	244,164,247	1,275,330,953	441,050,438	1,733,044,565
Totals, Farm Origin.....	10,342	313,807	574,721,083	2,689,671,528	1,270,479,815	4,009,814,910
Canadian origin.....	9,417	246,497	442,329,220	2,297,021,848	984,848,185	3,310,947,808
Foreign origin.....	925	67,310	132,391,863	392,649,680	285,631,630	689,867,102
1949						
Farm origin.....	10,023	312,573	608,297,050	2,664,102,189	1,327,990,992	4,042,745,891
Mineral origin.....	5,936	453,960	1,147,317,944	2,652,631,878	2,315,722,610	5,133,084,333
Forest origin.....	15,467	255,671	562,316,999	1,051,100,174	1,158,202,397	2,288,386,108
Marine origin.....	599	11,856	16,969,825	69,090,041	41,140,022	111,961,148
Wildlife origin.....	663	8,370	18,008,212	38,475,825	28,844,758	67,646,428
Mixed origin.....	3,104	128,777	238,980,627	367,830,957	458,665,655	835,769,392
Grand Totals, 1949.....	35,792	1,171,207	2,591,890,657	6,843,231,064	5,330,566,434	12,479,593,300
Farm Origin Group—						
From field crops.....	6,165	175,715	348,944,897	1,414,938,794	863,950,508	2,313,027,879
From animal husbandry..	3,858	136,858	259,352,153	1,249,163,395	464,040,484	1,729,718,012
Totals, Farm Origin.....	10,023	312,573	608,297,050	2,664,102,189	1,327,990,992	4,042,745,891
Canadian origin.....	9,204	247,762	473,274,682	2,289,435,804	1,041,245,310	3,369,356,461
Foreign origin.....	819	64,811	135,022,368	374,666,385	286,745,682	673,389,430

Subsection 3.—Manufactures Classified by Type of Ownership

Figures showing the classification of manufacturing establishments by type of ownership are available from 1946, though the figures for that year are not strictly comparable with those for succeeding years due to the later inclusion of the fish curing and packing industry.

Of the 35,792 establishments operating in 1949, 1,332 in the periodical publishing industry were not classifiable. Thus, the percentages for 1949 presented in Tables 11 and 12 are based on a total of 34,460 establishments.

As is to be expected, the smaller establishments, regardless of type of products manufactured, are carried on under individual ownership. In that category industries conducted on a small scale contain a large number of establishments, the percentage decreasing as the scale of operation increases, as the following statement shows:—

Group	Average Number of Employees per Establishment	Percentage of Individual Ownership Establishments to the Total
Leather products.....	4.7	32.5
Wood products.....	10.9	63.1
Food and beverages.....	19.8	49.9
Printing, publishing and allied trades.....	22.5	49.0
Non-metallic mineral products.....	27.6	34.7
Miscellaneous manufacturing industries.....	29.6	31.4
Clothing (textile and fur).....	38.5	29.0
Chemicals and chemical products.....	39.9	18.4
Iron and steel products.....	69.7	26.1
Non-ferrous metal products.....	84.0	27.4
Textiles (except clothing).....	91.8	27.3
Paper products.....	145.9	9.0
Tobacco and tobacco products.....	148.4	38.9
Electrical apparatus and supplies.....	153.2	13.4
Transportation equipment.....	175.3	34.4
Products of petroleum and coal.....	189.0	—
Rubber products.....	334.3	8.1
ALL GROUPS.....	311.7	46.0

11.—Percentage Distribution of Establishments in Manufacturing Industries, classified by Type of Ownership, by Provinces and Industrial Groups, 1949, with totals for 1946-49.

Province and Industrial Group	Individual Ownership	Partner- ships	Incorporated Companies	Co-opera- tives	Total
	p.c.	p.c.	p.c.	p.c.	p.c.
1946 (estimated).....	47.3	16.0	33.4	3.3	100.0
1947.....	46.4	16.1	34.3	3.2	100.0
1948.....	46.2	16.4	34.4	3.0	100.0
1949					
PROVINCE					
Newfoundland.....	63.0	24.8	12.0	0.2	100.0
Prince Edward Island.....	51.4	16.9	22.5	9.2	100.0
Nova Scotia.....	52.8	17.4	27.5	2.3	100.0
New Brunswick.....	54.7	12.3	30.0	3.0	100.0
Quebec.....	51.0	12.3	32.2	4.5	100.0
Ontario.....	41.0	16.6	40.7	1.7	100.0
Manitoba.....	40.2	16.6	40.8	2.4	100.0
Saskatchewan.....	56.8	15.4	22.7	5.1	100.0
Alberta.....	51.7	18.1	26.5	3.7	100.0
British Columbia.....	34.3	21.7	42.5	1.5	100.0
Yukon and Northwest Territories.....	72.2	11.1	16.7	—	100.0
Canada, 1949.....	46.0	15.8	35.3	2.9	100.0
INDUSTRIAL GROUP					
Food and beverages.....	49.9	11.6	27.5	11.0	100.0
Tobacco and tobacco products.....	38.9	6.9	50.0	4.2	100.0
Rubber products.....	8.1	12.9	79.0	—	100.0
Leather products.....	32.6	15.5	51.8	0.1	100.0
Textile products (except clothing).....	27.4	13.5	58.9	0.2	100.0
Clothing (textile and fur).....	29.0	21.4	49.6	—	100.0
Wood products.....	63.1	18.9	17.8	0.2	100.0
Paper products.....	9.0	4.6	86.4	—	100.0
Printing, publishing and allied industries ¹	49.0	15.8	34.8	0.4	100.0
Iron and steel products.....	26.1	17.4	56.2	0.3	100.0
Transportation equipment.....	34.4	13.3	52.3	—	100.0
Non-ferrous metal products.....	27.4	17.2	55.4	—	100.0
Electrical apparatus and supplies.....	13.4	9.9	76.7	—	100.0
Non-metallic mineral products.....	34.7	18.6	46.6	0.1	100.0
Products of petroleum and coal.....	—	—	100.0	—	100.0
Chemical products.....	18.4	6.5	74.7	0.4	100.0
Miscellaneous manufacturing industries...	31.3	16.6	52.1	—	100.0

¹ Four main categories of ownership only; the non-classifiable group is not included.

On the basis of employment provided, incorporated companies are by a very wide margin the most important factor in the employment field. Establishments operating under individual ownership are not as important from the point of view of employment provided as their large numbers would seem to indicate.

12.—Percentage Distribution of Employment in the Manufacturing Industries, classified by Type of Ownership, by Provinces and Industrial Groups, 1949, with Totals for 1946-49.

Province or Group	Individual Ownership	Partnerships	Incorporated Companies	Co-operatives	Total
	p.c.	p.c.	p.c.	p.c.	p.c.
1946 (estimated).....	7.9	4.7	86.5	0.9	100.0
1947.....	7.5	4.5	87.0	1.0	100.0
1948.....	7.1	4.4	87.5	1.0	100.0
1949					
PROVINCE					
Newfoundland.....	13.1	8.0	78.8	0.1	100.0
Prince Edward Island.....	22.3	10.6	59.6	7.5	100.0
Nova Scotia.....	11.9	4.7	82.2	1.2	100.0
New Brunswick.....	11.4	3.8	83.1	1.7	100.0
Quebec.....	8.4	4.3	86.4	0.9	100.0
Ontario.....	4.9	3.7	91.0	0.4	100.0
Manitoba.....	6.2	4.6	87.6	1.6	100.0
Saskatchewan.....	13.4	7.7	69.9	9.0	100.0
Alberta.....	12.4	8.1	76.5	3.0	100.0
British Columbia.....	5.7	5.0	86.6	2.7	100.0
Yukon and Northwest Territories.....	31.1	3.4	65.5	—	100.0
Canada, 1949.....	6.8	4.2	88.0	1.0	100.0
INDUSTRIAL GROUP					
Food and beverages.....	11.7	4.6	78.5	5.2	100.0
Tobacco and tobacco products.....	1.1	0.4	95.7	2.8	100.0
Rubber products.....	0.3	0.5	99.2	—	100.0
Leather products.....	8.5	6.2	85.3	—	100.0
Textile products (except clothing).....	2.7	1.8	95.5	—	100.0
Clothing (textile and fur).....	8.8	10.3	80.9	—	100.0
Wood products.....	21.0	10.4	68.2	0.4	100.0
Paper products.....	0.5	0.4	99.1	—	100.0
Printing, publishing and allied industries ¹	10.0	5.7	83.0	1.3	100.0
Iron and steel products.....	2.9	2.5	94.3	0.3	100.0
Transportation equipment.....	0.9	0.7	98.4	—	100.0
Non-ferrous metal products.....	3.2	2.0	94.8	—	100.0
Electrical apparatus and supplies.....	0.9	1.5	97.6	—	100.0
Non-metallic mineral products.....	6.3	5.6	88.0	0.1	100.0
Products of petroleum and coal.....	—	—	100.0	—	100.0
Chemical products.....	1.5	0.7	97.5	0.3	100.0
Miscellaneous manufacturing industries.....	7.6	5.5	86.9	—	100.0

¹ Four main categories of ownership only; the non-classifiable group is not included.

13.—Percentage Distribution of Employment in the Forty Leading Industries, by Type of Ownership, 1949

Industry	Individual Ownership	Partnerships	Incorporated Companies	Co-operatives	Total
	p.c.	p.c.	p.c.	p.c.	p.c.
1 Pulp and paper mills.....	—	0.1	99.9	—	100.0
2 Slaughtering and meat packing.....	2.0	2.0	92.9	3.1	100.0
3 Non-ferrous metal smelting and refining.....	—	—	100.0	—	100.0
4 Motor-vehicles.....	—	—	100.0	—	100.0
5 Petroleum products.....	—	—	100.0	—	100.0
6 Sawmills.....	31.1	12.7	55.9	0.3	100.0
7 Butter and cheese.....	12.7	4.2	61.2	21.9	100.0
8 Primary iron and steel.....	—	—	100.0	—	100.0
9 Railway and rolling-stock equipment.....	—	—	100.0	—	100.0
10 Flour mills.....	2.4	3.3	92.6	1.7	100.0
11 Clothing, men's factory.....	4.9	8.5	86.6	—	100.0
12 Cotton yarn and cloth.....	0.1	0.1	99.8	—	100.0
13 Bread and other bakery products.....	29.8	8.0	61.7	0.5	100.0

**13.—Percentage Distribution of Employment in the Forty Leading Industries,
by Type of Ownership, 1949—concluded**

Industry	Individual Ownership	Partner- ships	Incorporated Companies	Co-opera- tives	Total
	p.c.	p.c.	p.c.	p.c.	p.c.
14 Clothing, women's factory.....	9.6	12.6	77.8	—	100.0
15 Rubber goods, including footwear.....	0.3	0.5	99.2	—	100.0
16 Agricultural implements and machin- ery.....	0.9	1.6	96.2	1.3	100.0
17 Motor-vehicle parts.....	1.6	1.1	97.3	—	100.0
18 Printing and publishing.....	6.6	3.6	88.5	1.3	100.0
19 Miscellaneous electrical products.....	0.5	1.2	98.3	—	100.0
20 Miscellaneous foods.....	7.1	3.9	89.0	—	100.0
21 Machinery, heavy electrical.....	—	1.0	99.0	—	100.0
22 Furniture.....	10.9	9.1	80.0	—	100.0
23 Sheet metal products.....	3.2	2.7	94.1	—	100.0
24 Feeds, stock and poultry, prepared.....	12.6	6.7	65.2	15.5	100.0
25 Fruit and vegetable preparations.....	6.9	5.8	83.3	4.0	100.0
26 Machinery, industrial.....	2.3	1.5	95.8	0.4	100.0
27 Malt liquors.....	—	—	100.0	—	100.0
28 Planing mills, sash and door factories..	19.1	10.4	70.5	—	100.0
29 Castings, iron.....	3.3	3.5	93.2	—	100.0
30 Synthetic textiles and silk.....	0.4	—	99.6	—	100.0
31 Printing and bookbinding.....	16.4	9.0	72.9	1.7	100.0
32 Boxes and bags, paper.....	1.6	0.9	97.2	0.3	100.0
33 Sugar refining.....	—	—	100.0	—	100.0
34 Boots and shoes, leather.....	8.2	3.6	88.2	—	100.0
35 Brass and copper products.....	2.7	1.5	95.8	—	100.0
36 Tobacco, cigars and cigarettes.....	1.2	0.6	98.2	—	100.0
37 Fish processing ¹	12.8	3.9	72.8	10.5	100.0
38 Confectionery.....	5.0	3.5	91.5	—	100.0
39 Coke and gas products.....	—	—	100.0	—	100.0
40 Miscellaneous paper goods.....	2.0	1.7	96.3	—	100.0

¹ Excluding Newfoundland.

Subsection 4.—Leading Manufacturing Industries

The rank of the ten leading industries in 1949, from the standpoint of gross value of production, is compared with their respective ranks in significant years since 1922 in the following statement:—

Industry	Rank in—						
	1922	1929	1933	1939	1944	1948	1949
Pulp and paper.....	2	1	1	2	5	1	1
Slaughtering and meat packing.....	3	2	3	3	1	2	2
Non-ferrous metal smelting and refining.....	1	9	2	1	2	3	3
Motor-vehicles.....	6	4	11	5	7	6	4
Petroleum products.....	9	10	6	6	14	7	5
Sawmills.....	4	5	14	8	11	5	6
Butter and cheese.....	5	6	5	4	10	8	7
Primary iron and steel.....	20	16	31	11	13	10	8
Railway rolling-stock.....	24	7	23	16	16	11	9
Flour mills.....	1	3	4	7	12	9	10

¹ Did not rank among the forty leading industries in 1922.

The depression of the 1930's resulted in a rearrangement in the ranking of many industries which in some cases proved to be temporary. Also, during World War II the industries engaged in producing war equipment, such as shipbuilding, aircraft, automobiles, and miscellaneous chemical products, advanced to higher positions but when the war ended industries engaged in the production of consumer goods again advanced their positions. Pulp and paper, after a lapse of a number of years, resumed its premier place in 1948. With one exception, the

industries in the lead in 1948 remained in the first ten places in 1949, although the order was changed slightly. The electrical apparatus and supplies industry, which for many years ranked among the first ten, dropped out of this class in 1949. This was not due to a change in its importance as a producer of manufactured goods, but to a change in its composition introduced by the Standard Classification which groups this industry, formerly classified as one, into five subdivisions: batteries; heavy electrical machinery; radios and radio parts; refrigerators, vacuum cleaners and appliances; and miscellaneous electrical products.

14.—Principal Statistics of the Forty Leading Industries, ranked according to Gross Value of Products, 1949

Industry	Estab- lish- ments No.	Em- ployees No.	Salaries and Wages \$	Cost of Materials \$	Net Value of Products \$	Gross Value of Products \$
1 Pulp and paper.....	123	52,050	157,703,868	348,662,719	423,375,527	836,148,393
2 Slaughtering and meat packing..	157	20,586	52,136,180	586,241,637	108,059,068	697,950,039
3 Non-ferrous metal smelting and refining.....	16	19,150	55,133,065	380,275,977	181,907,847	599,188,135
4 Motor-vehicles.....	15	27,022	76,684,328	300,705,398	182,055,285	485,756,877
5 Petroleum products.....	47	9,413	26,142,276	336,973,056	82,971,097	436,796,213
6 Sawmills.....	7,460	55,032	97,449,091	205,935,217	186,120,981	396,415,201
7 Butter and cheese.....	1,862	22,479	41,612,537	274,298,757	74,705,184	355,004,031
8 Primary iron and steel.....	55	29,097	82,958,229	147,229,391	136,152,628	305,734,984
9 Railway rolling-stock.....	39	32,410	82,135,159	133,053,860	109,228,718	246,754,026
10 Flour mills ¹	133	5,033	11,965,400	215,404,869	28,342,755	245,274,202
11 Clothing, men's factory.....	565	33,298	57,343,483	121,485,389	98,546,341	220,701,259
12 Cotton yarn and cloth.....	53	25,178	49,363,696	124,685,279	83,073,026	211,384,517
13 Bread and other bakery prod- ucts.....	2,730	31,763	57,552,745	102,555,311	94,717,220	203,720,116
14 Clothing, women's factory ¹	890	29,129	55,424,392	105,156,893	96,791,010	202,412,558
15 Rubber goods incl. footwear.....	62	20,729	48,172,207	73,895,718	101,705,513	178,503,559
16 Agricultural implements and machinery.....	79	16,588	44,219,589	95,685,026	79,192,612	176,970,283
17 Motor-vehicle parts.....	150	17,898	45,062,602	88,400,691	81,194,554	171,590,042
18 Printing and publishing.....	784	26,272	63,550,242	48,877,899	118,825,355	169,268,479
19 Electrical apparatus and sup- plies, n.e.s. ¹	145	19,596	46,967,735	65,469,109	93,945,513	161,008,162
20 Foods, miscellaneous.....	297	6,978	13,319,291	114,717,702	43,386,636	158,974,544
21 Machinery, heavy electrical ¹	46	19,490	51,522,690	63,755,040	92,767,507	158,150,426
22 Furniture.....	1,187	26,931	53,591,185	70,147,728	85,289,672	157,122,632
23 Sheet metal products.....	275	16,414	39,304,865	84,810,689	70,098,369	156,717,444
24 Feeds, stock and poultry, pre- pared.....	485	5,356	10,889,537	125,645,640	24,361,413	151,470,360
25 Fruit and vegetable preparations	473	14,992	23,863,821	89,502,037	57,106,291	148,762,324
26 Machinery, industrial ¹	296	19,479	48,248,262	48,389,379	97,927,235	148,156,612
27 Breweries.....	64	8,652	23,461,437	37,939,869	102,125,599	142,399,729
28 Planing mills, sash and door factories.....	1,501	18,171	33,872,726	80,408,276	55,498,422	137,717,568
29 Castings, iron.....	231	18,339	46,165,355	55,315,454	74,880,824	133,313,505
30 Synthetic textiles and silk.....	48	16,828	36,121,584	45,217,912	75,578,244	124,125,414
31 Printing and bookbinding.....	1,530	22,029	47,147,222	42,773,922	76,474,961	120,822,700
32 Boxes and bags, paper.....	174	12,763	25,513,079	72,113,972	47,333,714	120,321,918
33 Sugar refining.....	11	3,587	8,842,783	90,172,181	23,703,295	116,767,430
34 Boots and shoes, leather.....	284	22,290	36,733,243	61,023,445	54,956,420	116,514,620
35 Brass and copper products.....	162	9,389	22,943,888	73,045,193	40,700,161	115,407,796
36 Tobacco, cigars and cigarettes.....	67	9,029	19,028,381	59,319,660	53,641,340	113,334,066
37 Fish processing ²	599	11,856	16,969,825	69,090,041	41,140,022	111,961,148
38 Miscellaneous paper goods.....	204	9,181	19,476,921	56,444,549	42,868,657	100,230,130
39 Confectionery, cocoa, etc.....	206	10,317	17,107,649	51,001,165	47,401,925	99,424,355
40 Coke and gas products.....	30	5,139	13,641,224	54,063,072	34,847,993	96,934,506
Totals, Leading Industries²	23,525	779,933	1,759,941,792	5,199,528,422	3,603,498,934	9,029,210,393
Totals, All Industries²	35,792	1,171,207	2,591,890,657	6,843,231,064	5,330,566,434	12,479,593,300
Percentages of leading industries to all industries.....	65.7	66.5	67.8	76.0	67.6	72.3

¹ Not comparable with previous years.

² Exclusive of fish processing in Newfoundland.

15.—Principal Statistics of the Forty Leading Industries, ranked according to Gross Value of Products, 1950

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	123	52,343	169,246,531	373,882,762	511,142,983	954,137,651
2 Slaughtering and meat packing.....	157	20,522	54,532,037	645,353,830	107,791,364	757,043,355
3 Motor-vehicles.....	19	29,355	94,414,819	388,496,630	284,785,098	675,867,467
4 Non-ferrous metal smelting and refining.....	17	19,863	58,748,362	428,697,787	202,711,781	669,882,806
5 Petroleum products.....	46	10,056	30,557,596	384,356,381	107,371,118	511,516,392
6 Sawmills.....	7,551	58,722	111,492,079	252,321,608	239,225,162	496,948,398
7 Primary iron and steel.....	55	29,051	85,411,927	159,282,919	154,542,373	340,540,042
8 Butter and cheese.....	1,806	21,022	41,951,621	250,017,648	74,353,823	330,709,143
9 Cotton yarn and cloth.....	51	26,967	55,220,043	157,835,813	95,309,562	257,333,892
10 Flour mills ¹	118	4,903	11,917,625	213,755,757	31,836,800	247,107,775
11 Rubber goods, including foot- wear.....	61	21,812	54,262,864	101,773,382	134,061,761	239,184,510
12 Clothing, men's factory.....	566	32,853	59,301,388	122,603,415	103,346,165	226,659,057
13 Motor-vehicle parts.....	151	19,719	56,092,273	122,038,705	101,516,705	226,539,375
14 Bread and other bakery prod- ucts.....	2,608	31,149	60,073,998	109,213,199	98,412,581	214,586,981
15 Clothing, women's factory ¹	914	28,981	55,864,122	102,712,875	91,419,056	194,636,469
16 Railway rolling-stock.....	318	29,257	73,356,659	110,373,110	79,756,161	194,236,237
17 Machinery, heavy electrical ¹	49	20,825	57,380,065	73,966,855	112,101,686	187,758,282
18 Printing and publishing.....	787	26,743	68,951,989	50,628,704	129,018,312	181,361,391
19 Foods, miscellaneous, <i>n.e.s.</i>	299	7,129	14,198,293	132,139,535	46,505,787	179,607,764
20 Furniture.....	1,207	27,259	57,111,744	79,803,680	90,624,200	172,331,144
21 Sheet metal products.....	283	17,049	42,630,287	92,352,260	77,559,028	171,946,702
22 Miscellaneous electrical appar- atus and supplies, <i>n.e.s.</i>	145	19,246	49,507,238	74,408,698	64,667,534	170,735,391
23 Fruit and vegetable preparations.....	444	14,803	21,561,151	94,333,734	64,278,160	161,091,734
24 Sash, door and planing mills.....	1,590	19,128	36,924,630	96,907,258	61,711,765	160,719,698
25 Machinery, industrial ¹	303	19,389	51,447,438	55,504,674	102,901,482	160,391,298
26 Feeds, stock and poultry, pre- pared.....	568	5,191	10,645,384	128,513,344	25,089,531	155,324,874
27 Agricultural implements.....	86	16,223	43,284,686	79,123,750	68,356,009	149,500,240
28 Breweries.....	63	8,311	23,883,605	42,018,271	105,073,118	149,409,487
29 Synthetic textiles and silk.....	47	17,955	40,111,600	55,518,058	87,763,220	147,047,995
30 Sugar refining.....	12	3,919	9,535,834	109,713,103	31,939,788	144,872,567
31 Castings, iron.....	218	17,567	47,718,207	60,200,601	78,528,361	142,361,845
32 Boxes and bags, paper.....	177	13,302	28,551,890	83,841,035	55,813,164	140,656,880
33 Printing and bookbinding.....	1,533	22,335	51,452,804	48,228,108	84,863,318	134,277,139
34 Fish processing ²	591	11,842	13,722,240	79,959,218	46,691,639	128,423,853
35 Brass and copper products.....	155	8,932	22,893,180	82,380,983	42,010,862	126,200,549
36 Tobacco, cigars and cigarettes.....	53	8,503	19,511,951	62,681,958	59,383,685	122,429,151
37 Refrigerators, vacuum cleaners and appliances.....	95	9,518	22,843,556	59,570,593	60,470,530	120,929,701
38 Miscellaneous paper goods.....	204	9,365	21,349,335	63,929,898	50,042,383	114,990,880
39 Footwear, leather.....	292	20,785	34,710,042	59,684,259	50,717,873	110,968,680
40 Confectionery.....	207	10,854	18,451,058	54,520,295	49,223,151	104,853,748
Totals, Leading Industries²	23,689	792,888	1,888,827,941	5,742,705,093	4,092,827,079	10,075,220,543
Totals, All Industries²	35,942	1,183,297	2,771,267,435	7,538,534,532	5,942,058,229	13,817,526,351
Percentages of leading industries to all industries.....	65.9	67.0	68.2	76.2	68.9	72.9

¹ Not comparable with years prior to 1949.² Exclusive of fish processing in Newfoundland.

Section 3.—Principal Factors in Manufacturing Production

Subsection 1.—Salaries and Wages in Manufacturing Industries

Statistics of earnings and hours of work of wage-earners and salaried employees in manufacturing will be found in Chapter XVIII on Labour.

In 1949, the 35,792 manufacturing establishments employed 221,551 salaried employees and 949,656 wage-earners, a total of 1,171,207 persons. Out of every 1,000 persons employed in these industries, 189 were classed as salary-earners and 811 as wage-earners; the former earned 24 p.c. and the latter 76 p.c. of the total amount paid

out as remuneration for services. It is interesting to note the reduction in the disparity between average annual salaries and wages that has taken place in recent years. Whereas in 1939 average annual wages were only 56 p.c. of average annual salaries, in 1943 the percentage rose to 76, declined to 69 in 1947 and rose again to 73 in 1949.

16.—Total and Average Annual Salaries and Wages Paid in Manufacturing Industries, Significant Years, 1917-49

Year	Annual Salaries				Annual Wages			
	Salaried Employees		Total Salaries	Average Salaries	Wage-Earners		Total Wages	Average Wages
	Male	Female			Male	Female		
	No.	No.	\$	\$	No.	No.	\$	\$
1917.....	64,918		85,353,667	1,315	541,605		412,448,177	762
1920.....	78,334		141,837,361	1,811	520,559		575,656,515	1,106
1922.....	71,586		129,836,831	1,814	384,670		359,560,399	935
1924.....	54,379	15,641	130,344,822	1,862	322,719	94,871	404,122,853	968
1926 ¹	58,245	17,092	142,353,900	1,890	374,244	109,580	483,328,342	999
1929 ¹	67,731	21,110	175,553,710	1,976	454,768	122,922	601,737,507	1,042
1933.....	67,875	18,761	139,317,946	1,608	287,266	94,756	296,929,878	777
1939.....	98,165	26,607	217,839,334	1,746	415,488	117,854	519,971,819	975
1940.....	104,267	31,493	241,599,761	1,780	491,439	135,045	679,273,104	1,084
1941.....	117,251	41,693	286,336,861	1,801	626,825	175,409	978,525,782	1,220
1942.....	123,125	54,062	334,870,793	1,890	732,319	242,585	1,347,934,049	1,383
1943.....	128,679	64,516	388,857,505	2,013	762,854	285,019	1,598,434,879	1,525
1944.....	126,858	65,700	418,065,594	2,171	744,635	285,689	1,611,555,776	1,564
1945.....	128,601	62,106	417,857,619	2,191	680,620	248,045	1,427,915,830	1,538
1946.....	127,002	54,004	410,875,776	2,270	662,699	214,451	1,329,811,478	1,516
1947.....	135,248	55,852	474,693,800	2,484	721,407	219,243	1,611,232,166	1,713
1948.....	141,082	57,197	532,702,476	2,687	738,956	218,771	1,877,107,315	1,960
1949.....	157,516	64,035	628,427,937	2,836	732,457	217,199	1,963,462,720	2,067

¹ The averages of wage-earners and earnings for the years 1933 to 1947 are strictly comparable with those for the years up to 1924 but not with those for the intervening years. The figures for the latest years—as for the earliest—represent the earnings for complete man-years of work, with no allowance for periods of unemployment. The difference amounts to about 3 or 4 p.c. in the total figures and affects chiefly the seasonal industries.

Ontario has a larger proportion of females among its salaried employees than any of the other provinces. This situation prevails in Quebec with regard to wage-earners owing, no doubt, to the textile industries of the Province. The importance of the textile industries in providing employment to females is strikingly illustrated by the fact that, of all female wage-earners engaged in the manufacturing industries of Canada in 1949, 44.6 p.c. were found in the textile group, including furs.

The average salary in 1949 amounted to \$2,836 which was \$1,090 or 62 p.c. higher than in 1939. Salaried employees in Ontario with \$2,990 were the highest paid, those in Quebec second with \$2,812, followed by British Columbia with \$2,758 and Manitoba with \$2,729. The location of head offices of many large corporations at Montreal, Toronto, Winnipeg and Vancouver tends to raise the average salaries in the provinces in which these cities are located.

The average wage in 1949 amounted to \$2,067 which was \$1,092 or 112 p.c. higher than in 1939. The manufacturing industries of Newfoundland paid the highest average wage of \$2,392, displacing British Columbia which formerly occupied the premier position. British Columbia followed with \$2,282, Ontario with \$2,187, Saskatchewan with \$2,042 and Alberta with \$2,025. The high figures shown for the Yukon and Northwest Territories in regard to average wages are due to the unusual conditions under which industry is carried on in these regions and are not representative. Statistics of the distribution of employees by provinces and industrial groups, together with average annual earnings, are given in Table 17.

17.—Total and Average Annual Salaries and Wages Paid in Manufacturing Industries, by Provinces and Industrial Groups, 1949

Province and Industrial Group	Annual Salaries				Annual Wages			
	Salaried Employees		Total Salaries	Average Salaries	Wage-Earners		Total Wages	Average Wages
	Male	Female			Male	Female		
PROVINCE	No.	No.	\$	\$	No.	No.	\$	\$
Newfoundland.....	1,604	252	3,336,775	1,797	4,278	800	12,149,561	2,392
Prince Edward Island.....	382	101	685,087	1,418	894	370	1,448,468	1,145
Nova Scotia.....	3,469	949	9,627,619	2,179	21,350	3,543	45,058,958	1,810
New Brunswick.....	2,663	901	7,959,966	2,233	16,229	3,653	36,259,853	1,823
Quebec.....	51,880	20,166	202,605,273	2,812	227,536	90,693	606,973,997	1,907
Ontario.....	73,926	33,941	322,626,810	2,990	351,955	97,368	982,917,624	2,187
Manitoba.....	5,656	1,991	20,870,715	2,729	26,118	8,191	65,217,665	1,900
Saskatchewan.....	2,241	796	6,333,357	2,085	6,778	1,026	15,940,585	2,042
Alberta.....	4,287	1,311	12,937,715	2,311	17,727	3,100	42,177,839	2,025
British Columbia.....	11,366	3,615	41,320,807	2,758	59,505	8,448	155,082,915	2,282
Yukon and Northwest Territories.....	42	12	123,813	2,292	87	7	235,255	2,502
Canada.....	157,516	64,035	628,427,937	2,836	732,457	217,199	1,963,462,720	2,067
INDUSTRIAL GROUP								
Foods and beverages.....	23,933	9,557	84,349,430	2,518	102,345	34,189	248,186,889	1,817
Tobacco and tobacco products.....	951	503	4,521,508	3,109	3,410	5,822	17,374,870	1,882
Rubber products.....	3,274	1,323	13,673,212	2,974	11,976	4,156	34,498,995	2,138
Leather products.....	2,990	1,230	12,799,466	3,033	18,037	12,643	46,900,420	1,528
Textile products (except clothing).....	6,649	3,409	32,181,548	3,199	41,447	26,268	123,985,006	1,830
Clothing (textile and fur).....	9,662	6,004	49,071,646	3,132	31,577	70,509	157,441,136	1,542
Wood products.....	18,862	2,825	41,307,827	1,904	94,698	5,247	183,594,817	1,836
Paper products.....	9,077	3,573	46,537,336	3,678	55,201	8,620	161,811,285	2,535
Printing, publishing and allied industries.....	14,516	8,791	55,198,009	2,368	29,530	8,997	86,291,975	2,239
Iron and steel products.....	21,541	7,749	90,648,050	3,094	127,501	6,831	322,579,503	2,401
Transportation equipment.....	11,884	3,567	50,643,361	3,277	86,154	3,145	220,208,750	2,465
Non-ferrous metal products.....	5,893	2,476	26,695,908	3,189	32,938	3,391	87,895,198	2,419
Electrical apparatus and supplies.....	9,152	4,105	39,637,021	2,989	31,076	11,583	97,641,500	2,288
Non-metallic mineral products.....	3,385	1,073	12,648,921	2,837	21,728	1,953	51,945,433	2,193
Products of petroleum and coal.....	2,961	869	11,874,941	3,100	10,631	91	27,908,559	2,602
Chemicals and allied products.....	9,404	5,110	41,842,240	2,882	21,561	5,253	58,848,422	2,194
Miscellaneous manufacturing industries.....	3,382	1,871	14,797,513	2,816	12,647	8,501	36,349,962	1,718

Average Annual Earnings in the Forty Leading Industries.—In 1949 there were 20 industries in which the average salary was \$3,000 or over, compared with 16 industries in this range in 1948. The rapidly changing pattern of remuneration in manufacturing is shown by the fact that in 1945 the highest average salary paid was \$2,935 reported by the brewing industry. The highest average salary in 1949 was \$3,977 received by office and supervisory employees in the pulp and paper industry. In the remaining 20 leading industries, 13 had average salaries of between \$2,500 and \$3,000 and seven were below \$2,500. The sawmill and butter and cheese industries, with \$1,283 and \$1,800, respectively, paid the lowest salaries in the forty leading industries.

The increase in average wages since 1945 paralleled that of salaries. There were 23 industries averaging over \$2,000 in 1949 compared with only four in 1945. In 1945 the highest average annual wage was \$2,365 paid by the motor-vehicle industry while in 1949 the highest was \$2,851 paid by the pulp and paper industry. The highest wages are usually paid by industries in which the proportion of skilled workers is high and the proportion of female workers low. There were seven industries in 1949 with average wages of \$2,500 or over and 16 in which the average ranged between \$2,000 and \$2,500. In the other 17 industries of the forty leading

industry group average wages were below \$2,000. This latter group includes industries made up of a large number of small establishments in which the proportion of female workers is high, such as men's factory clothing, women's factory clothing, hosiery and knitted goods, leather boots and shoes, fruit and vegetable preparations, and fish curing and packing.

18.—Annual Salaries and Wages Paid in the Forty Leading Industries, 1949, with Comparative Figures of Annual Average Salaries and Wages Paid in 1948

NOTE.—Industries ranked according to the aggregate salaries and wages paid.

Industry	Annual Salaries						Annual Wages					
	Salaried Employees		Total Salaries	Average Salaries		Wage-Earners		Total Wages	Average Wages			
	Male	Female		1949	1948	Male	Female		1949	1948		
	No.	No.	\$	\$	\$	No.	No.	\$	\$	\$		
1 Pulp and paper.....	6,231	2,012	32,784,295	3,977	3,776	43,126	681	124,919,573	2,851	2,764		
2 Sawmills.....	10,661	611	14,462,022	1,283	1,129	43,304	456	82,987,069	1,896	1,802		
3 Primary iron and steel.....	2,365	812	11,472,895	3,611	3,262	25,570	350	71,485,334	2,757	2,561		
4 Railway rolling-stock...	1,930	245	7,290,827	3,352	3,046	30,137	98	74,844,332	2,475	2,440		
5 Motor-vehicles.....	3,673	1,288	17,994,690	3,627	3,415	21,856	205	58,689,638	2,660	2,635		
6 Printing and publishing	7,471	4,184	27,876,533	2,391	2,206	12,542	2,075	35,673,709	2,440	2,255		
7 Bread and other bakery products.....	3,700	1,180	10,570,235	2,166	1,910	20,347	6,536	46,982,510	1,747	1,655		
8 Clothing, men's factory	2,620	1,628	13,369,459	2,314	3,114	8,746	20,304	43,974,024	1,513	1,422		
9 Clothing, women's factory.....	2,447	1,659	13,938,229	3,394	3,107	6,413	18,610	41,486,163	1,657	1,552		
10 Non-ferrous metal smelting and refining	2,271	502	9,870,736	3,559	3,120	16,321	56	45,262,329	2,763	2,574		
11 Furniture.....	3,089	977	11,454,076	2,817	2,612	20,887	1,978	42,137,109	1,842	1,710		
12 Slaughtering and meat packing.....	3,409	1,137	13,998,397	3,079	2,923	13,353	2,687	38,137,783	2,377	2,222		
13 Machinery, heavy electrical.....	2,893	1,183	12,148,865	2,980	...	12,309	3,105	39,373,825	2,554	...		
14 Cotton yarn and cloth.....	1,342	759	6,176,505	2,910	3,067	14,443	8,634	43,187,191	1,871	1,766		
15 Machinery, industrial...	3,882	1,534	15,987,842	2,951	...	13,660	403	32,260,420	2,293	...		
16 Rubber goods, including footwear.....	3,274	1,323	13,673,212	2,974	2,800	11,976	4,156	34,498,995	2,138	2,108		
17 Printing and bookbinding.....	3,567	1,609	13,928,242	2,690	2,506	11,656	5,197	33,218,980	1,971	1,823		
18 Electrical apparatus and supplies, n.e.s....	3,373	1,510	14,411,054	2,951	2,767	10,456	4,257	32,556,681	2,212	2,125		
19 Castings, iron.....	1,509	606	6,567,007	3,104	3,013	15,879	345	39,598,348	2,440	2,326		
20 Motor-vehicle parts....	1,913	834	9,053,648	3,295	3,200	12,953	2,198	36,608,954	2,416	2,244		
21 Agricultural implements.....	2,156	572	9,481,186	3,475	2,697	13,696	164	34,738,403	2,506	2,306		
22 Butter and cheese.....	3,894	1,738	10,138,229	1,800	1,693	15,649	1,198	31,474,308	1,868	1,753		
23 Sheet metal products...	2,298	855	9,738,176	3,088	2,768	11,545	1,716	29,566,689	2,229	2,020		
24 Footwear, leather.....	1,706	743	7,322,734	2,990	2,815	11,023	8,818	29,410,509	1,482	1,363		
25 Synthetic textiles and silk.....	1,837	813	8,303,242	3,133	2,959	9,796	4,382	27,818,342	1,962	1,764		
26 Sash, door and planing mills.....	2,741	587	7,807,674	2,346	2,092	14,664	179	26,065,052	1,756	1,633		
27 Shipbuilding.....	1,233	328	5,081,423	3,255	2,904	10,897	104	25,827,887	2,347	2,394		
28 Aircraft and parts.....	2,522	721	9,496,511	2,928	2,884	7,237	245	17,946,987	2,398	2,285		
29 Hardware, tools and cutlery.....	1,539	785	6,757,769	2,907	2,770	8,280	1,622	20,619,310	2,082	2,041		
30 Petroleum products....	2,031	525	8,268,487	3,234	3,099	6,774	83	17,873,789	2,606	2,467		
31 Boxes and bags, paper.....	1,281	672	6,420,425	3,287	3,083	5,950	4,860	19,092,654	1,766	1,614		
32 Fruit and vegetable preparations.....	1,653	828	6,115,375	2,464	2,352	6,492	6,019	17,748,446	1,418	1,384		
33 Knitted goods, other...	864	675	4,598,965	2,988	...	3,905	9,645	19,155,332	1,413	...		
34 Breweries.....	1,250	392	6,137,157	3,737	3,666	6,830	180	17,324,280	2,471	2,292		
35 Brass and copper products.....	1,232	536	5,540,728	3,133	3,117	6,978	643	17,403,160	2,283	2,111		
36 Machinery, household, office and store.....	1,009	513	4,471,147	2,937	...	6,797	916	17,526,919	2,272	...		
37 Hosiery.....	741	549	4,060,763	3,147	...	3,944	6,119	16,134,235	1,603	...		
38 Heating and cooking apparatus.....	1,103	427	4,383,098	2,864	2,588	7,002	213	15,427,828	2,138	2,107		
39 Woolen cloth.....	649	360	3,393,699	3,363	3,241	5,112	3,915	15,638,219	1,732	1,642		
40 Tobacco, cigars and cigarettes.....	737	471	3,706,313	3,068	2,845	2,657	5,164	15,322,068	1,959	1,775		
Totals, Forty Leading Industries....	104,096	38,683	408,251,870	2,859	2,667	531,162	138,516	1,429,997,384	2,135	2,009		
Grand Totals, All Industries.....	157,516	64,035	628,427,937	2,836	2,687	732,457	217,199	1,963,462,720	2,067	1,960		

¹ Average salaries and wages paid in the forty leading industries in 1948; the list of leading industries in that year was not the same as the list for 1949.

Average Earnings of Wage-Earners.—In comparing earnings by provinces or groups, consideration should be given to the type of industries in each case since the distribution of industries has a very definite regional significance. In some industries a labour force possessing deftness and speed or the ability to exercise muscular strength is necessary, in others the labour force must exercise craftsmanship or possess a high degree of technical knowledge. Workers in the latter industries naturally command relatively higher wages than those in industries where employees are routine workers.

The ranking of provinces and industries as regards annual earnings is, in many cases, different to that of weekly or hourly earnings since the factors of numbers of weeks worked per year and number of hours worked per week enter into the picture.

The figures for the years 1940 to 1945 given in Table 19 are based on an analysis of a pay-list covering one week in the month of highest employment. For this reason the figures do not refer to any particular month, since the month of highest employment might be May for one firm and October for another; they represent the summation of the different months of highest employment as reported by all the firms. For a particular industry, however, the month of highest employment is more significant as in such case it coincides for a great number of firms engaged in the same industry. The figures for 1946 to 1949 are based on returns received from establishments employing 15 persons or over; figures for 1946 and 1947 refer to the last week in November, whereas those for later years refer to the last week in October.

Average weekly earnings of male wage-earners for manufacturing as a whole amounted to \$47.33 in 1949, an increase of \$25.10 or 113 p.c. as compared with 1939. Average hourly earnings advanced from 46.2 cents in 1939 to \$1.07 in 1949, an increase of 132 p.c. Annual average earnings at \$2,291 were 113 p.c. higher.

Female wage-earners received an average of \$27.18 per week in 1949, an increase of \$14.40 or 113 p.c. over 1939. Hourly earnings at 68.3 cents were 141 p.c. higher, and annual average earnings at \$1,315 were 112 p.c. higher.

19.—Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners Employed in Manufacturing Industries, 1940-49

NOTE.—Butter and cheese factories and fish-curing and -packing plants are excluded in the years 1940 to 1945, while sawmills are also excluded in 1945. By including sawmills, weekly earnings in 1945 would have been about \$34.35 for male wage-earners.

Year	Average Earnings			Hours Worked per Week
	Annual	Weekly	Hourly	
	\$	\$	cents	No.
Male Wage-Earners—				
1940.....	1,202	24.82	48.8	50.9
1941.....	1,355	27.72	53.8	51.5
1942.....	1,558	31.75	61.9	51.3
1943.....	1,726	33.80	67.1	50.4
1944.....	1,761	34.95	71.2	49.1
1945.....	1,739	35.04	73.6	47.6
1946 ¹	1,702	36.23	80.7	44.9
1947 ¹	1,909	41.35	92.1	44.9
1948 ¹	2,175	45.73	102.3	44.7
1949 ¹	2,291	47.33	106.6	44.4

For footnote, see end of table, p. 632.

19.—Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners Employed in Manufacturing Industries, 1940-49—concluded

Year	Average Earnings			Hours Worked per Week
	Annual	Weekly	Hourly	
	\$	\$	cents	No.
Female Wage-Earners—				
1940.....	655	13.52	28.6	47.3
1941.....	736	15.05	31.6	47.6
1942.....	854	17.41	37.1	46.9
1943.....	987	19.33	43.1	44.8
1944.....	1,051	20.89	47.9	43.6
1945.....	984	19.84	46.5	42.7
1946 ¹	943	20.08	50.2	40.0
1947 ¹	1,067	23.11	58.2	39.7
1948 ¹	1,233	25.91	65.1	39.8
1949 ¹	1,315	27.18	68.3	39.8
All Wage-Earners—				
1940.....	1,084	22.35	44.6	50.1
1941.....	1,220	24.95	49.4	50.5
1942.....	1,383	28.18	56.1	50.2
1943.....	1,525	29.87	61.2	48.8
1944.....	1,564	31.05	65.4	47.5
1945.....	1,538	30.98	66.9	46.3
1946 ¹	1,516	32.38	74.1	43.7
1947 ¹	1,713	37.19	85.1	43.7
1948 ¹	1,960	41.25	94.6	43.6
1949 ¹	2,067	42.61	98.4	43.3

¹ Based on weekly earnings and hours worked in the last week of November for 1946 and 1947 and of October for 1948 and 1949 by establishments employing 15 persons or over.

20.—Average Annual, Weekly and Hourly Earnings of Wage-Earners in the Manufacturing Industries, by Provinces and Industrial Groups, 1949

Province or Industrial Group	Annual	Weekly	Hourly	Hours Worked per Week
	\$	\$	cents	No.
PROVINCE				
Newfoundland.....	2,392	..	..	..
Prince Edward Island.....	1,145	29.76	62.4	47.7
Nova Scotia.....	1,810	39.56	88.9	44.5
New Brunswick.....	1,823	38.64	85.1	45.4
Quebec.....	1,907	39.61	89.0	44.5
Ontario.....	2,187	44.34	103.6	42.8
Manitoba.....	1,900	41.06	94.6	43.4
Saskatchewan.....	2,042	41.34	97.5	42.4
Alberta.....	2,025	43.80	100.7	43.5
British Columbia.....	2,282	47.36	118.1	40.1
Yukon and Northwest Territories.....	2,502	..	..	..
Canada.....	2,067	42.61	98.4	43.3
INDUSTRIAL GROUP				
Food and beverages.....	1,817	38.45	86.8	44.3
Tobacco and tobacco products.....	1,882	38.63	88.6	43.6
Rubber products.....	2,138	43.36	102.6	42.3
Leather products.....	1,528	30.84	76.9	40.1
Textile products (except clothing).....	1,830	36.93	82.8	44.6
Clothing (textile and fur).....	1,542	30.46	77.7	39.2
Wood products.....	1,836	40.40	91.6	44.1
Paper products.....	2,535	49.74	105.6	47.1
Printing, publishing and allied trades.....	2,239	47.19	115.1	41.0
Iron and steel products.....	2,401	48.05	110.2	43.6
Transportation equipment.....	2,465	50.54	117.8	42.9
Non-ferrous metal products.....	2,419	48.26	108.7	44.4
Electrical apparatus and supplies.....	2,288	46.10	109.5	42.1
Non-metallic mineral products.....	2,193	45.22	98.3	46.0
Products of petroleum and coal.....	2,602	52.54	125.4	41.9
Chemicals and allied products.....	2,194	43.28	97.7	44.3
Miscellaneous industries.....	1,718	35.14	82.1	42.8

21.—Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners in the Manufacturing Industries, by Provinces and Industrial Groups, 1949

Province or Industrial Group	Male				Female			
	Annual	Weekly	Hourly	Hours Worked per Week	Annual	Weekly	Hourly	Hours Worked per Week
	\$	\$	cents	No.	\$	\$	cents	No.
PROVINCE								
Newfoundland.....	..	..	..	..	..	..	..	..
Prince Edward Island.....	1,323	33.96	70.6	48.1	718	18.45	39.6	46.8
Nova Scotia.....	1,959	42.87	95.7	44.8	911	19.94	46.8	42.6
New Brunswick.....	1,983	42.18	90.9	46.4	1,114	23.71	57.4	41.3
Quebec.....	2,171	45.19	97.6	46.3	1,246	25.93	64.5	40.2
Ontario.....	2,405	48.88	111.6	43.8	1,400	28.45	72.2	39.4
Manitoba.....	2,114	45.39	102.0	44.5	1,222	26.24	66.1	39.7
Saskatchewan.....	2,142	43.33	101.0	42.9	1,384	27.99	71.4	39.2
Alberta.....	2,137	46.01	104.8	43.9	1,385	29.83	73.3	40.7
British Columbia.....	2,410	49.82	123.0	40.5	1,381	28.57	76.8	37.2
Yukon and Northwest Territories..	..	..	..	..	..	..	..	..
Canada.....	2,291	47.33	106.6	44.4	1,315	27.18	68.3	39.8
INDUSTRIAL GROUP								
Food and beverages.....	2,046	43.98	95.2	46.2	1,140	24.51	62.2	39.4
Tobacco and tobacco products.....	2,258	46.74	102.5	45.6	1,662	34.42	80.8	42.6
Rubber products.....	2,353	47.68	111.4	42.8	1,520	30.80	75.3	40.9
Leather products.....	1,807	36.39	88.1	41.3	1,131	22.77	59.3	38.4
Textile products (except clothing).....	2,068	41.67	89.8	46.4	1,458	29.39	70.3	41.8
Clothing (textile and fur).....	2,170	43.31	104.1	41.6	1,261	25.17	65.9	38.2
Wood products.....	1,869	41.20	93.0	44.3	1,256	27.69	68.2	40.6
Paper products.....	2,721	53.31	111.3	47.9	1,350	26.44	63.1	41.9
Printing, publishing and allied trades.....	2,550	53.59	128.2	41.8	1,221	25.66	67.0	38.3
Iron and steel products.....	2,445	48.94	112.0	43.7	1,597	31.96	77.0	41.5
Transportation equipment.....	2,494	51.08	118.8	43.0	1,706	34.93	88.2	39.6
Non-ferrous metal products.....	2,521	50.26	112.7	44.6	1,437	28.63	68.5	41.8
Electrical apparatus and supplies.....	2,493	50.38	117.7	42.8	1,740	35.18	87.3	40.3
Non-metallic mineral products.....	2,252	46.45	100.1	46.4	1,540	31.10	74.4	41.8
Products of petroleum and coal.....	2,613	52.58	125.5	41.9	1,435	..	..	..
Chemical and allied products.....	2,404	47.40	105.1	45.1	1,334	26.32	64.5	40.8
Miscellaneous industries.....	2,006	41.38	93.4	44.2	1,292	26.66	65.5	40.7

Average Earnings of Salaried Employees.—Beginning with 1946, the survey of weekly earnings and hours worked by wage-earners was expanded to include salaried employees. The survey covers establishments employing 15 persons or over and refers to the last week in November for 1946 and 1947 and for the last week in October for 1948 and 1949. Earnings and hours worked are reported for male and female wage and salary earners in 13 groups of hours, ranging from 30 or less to 65 or more. The earnings reported for the week constitute the gross amount paid before deductions for income tax, unemployment insurance, etc. Weekly and hourly earnings as well as hours worked are thus obtained directly from the tabulated results of the reports. Annual earnings are calculated on the basis of weekly earnings correlated with the results of the annual Census of Industry.

22.—Average Annual, Weekly and Hourly Earnings of Male and Female Salary-Earners Employed in Manufacturing Industries, 1946-49

Year	Average Earnings			Hours Worked per Week
	Annual	Weekly	Hourly	No.
	\$	\$	cents	
Male Salary-Earners—				
1946.....	..	53.21	126.7	42.0
1947.....	..	60.21	146.1	41.2
1948.....	3,147	63.47	154.4	41.1
1949.....	3,317	65.37	160.2	40.8
Female Salary-Earners—				
1946.....	..	25.91	65.6	39.5
1947.....	..	28.68	73.7	38.9
1948.....	1,551	31.26	80.5	38.8
1949.....	1,655	32.62	84.5	38.6
All Salary-Earners—				
1946.....	..	43.85	106.7	41.1
1947.....	..	49.78	123.2	40.4
1948.....	2,687	52.91	131.3	40.3
1949.....	2,836	54.85	136.8	40.1

23.—Average Annual, Weekly and Hourly Earnings of Salary-Earners in the Manufacturing Industries, by Provinces and Industrial Groups, 1949

Province or Industrial Group	Annual	Weekly	Hourly	Hours Worked per Week
	\$	\$	cents	No.
PROVINCE				
Newfoundland.....	..	..	..	..
Nova Scotia.....	2,179	50.47	124.6	40.5
New Brunswick.....	2,233	48.42	113.1	42.8
Quebec.....	2,812	54.66	135.3	40.4
Ontario.....	2,990	55.32	139.3	39.7
Manitoba.....	2,729	52.98	128.3	41.3
Saskatchewan.....	2,085	45.18	107.0	42.2
Alberta.....	2,311	51.80	122.7	42.2
British Columbia.....	2,768	57.91	143.3	40.4
Yukon and Northwest Territories.....	..	..	..	..
Totals.....	2,836	54.85	136.8	40.1
INDUSTRIAL GROUP				
Food and beverages.....	2,518	52.31	126.9	41.2
Tobacco and tobacco products.....	3,109	54.17	135.4	40.0
Rubber products.....	2,974	53.70	137.0	39.2
Leather products.....	3,033	48.95	117.9	41.5
Textile products (except clothing).....	3,199	53.69	130.9	41.0
Clothing (textile and fur).....	3,132	48.04	118.3	40.6
Wood products.....	1,905	54.15	127.7	42.4
Paper products.....	3,679	65.57	164.3	39.9
Printing, publishing and allied trades.....	2,368	46.55	120.3	38.7
Iron and steel products.....	3,095	55.77	140.1	39.8
Transportation equipment.....	3,277	62.04	149.5	41.5
Non-ferrous metal products.....	3,189	60.25	147.3	40.9
Electrical apparatus and supplies.....	2,990	55.15	141.4	39.0
Non-metallic mineral products.....	2,837	53.94	135.2	39.9
Products of petroleum and coal.....	3,100	61.40	161.6	38.0
Chemicals and allied products.....	2,883	54.89	141.8	38.7
Miscellaneous industries.....	2,179	50.47	124.6	40.5

24.—Average Annual, Weekly and Hourly Earnings of Male and Female Salary-Earners in the Manufacturing Industries, by Provinces and Industrial Groups, 1949

Province or Industrial Group	Male				Female			
	Annual	Weekly	Hourly	Hours Worked per Week	Annual	Weekly	Hourly	Hours Worked per Week
PROVINCE	\$	\$	cents	No.	\$	\$	cents	No.
Newfoundland.....								
Nova Scotia.....	2,455	59.45	145.3	40.9	1,169	28.29	71.4	39.6
New Brunswick.....	2,568	57.64	131.6	43.8	1,243	27.88	68.6	40.6
Quebec.....	3,256	64.41	156.7	41.1	1,670	33.05	85.2	38.8
Ontario.....	3,458	51.82	128.2	40.4	1,974	29.59	77.2	38.3
Manitoba.....	3,150	62.19	148.4	41.9	1,534	30.30	75.9	39.9
Saskatchewan.....	2,364	53.23	124.6	42.7	1,300	29.30	71.3	41.1
Alberta.....	2,610	60.06	140.3	42.8	1,334	30.72	75.6	40.6
British Columbia.....	3,133	66.92	164.4	40.7	1,579	33.73	85.2	39.6
Yukon and Northwest Territories..	..	..	..	..	..	..	..	..
Totals.....	3,317	65.37	160.2	40.8	1,655	32.62	84.5	38.6
INDUSTRIAL GROUP								
Food and beverages.....	2,930	62.27	147.7	42.1	1,490	31.64	80.3	39.4
Tobacco and tobacco products.....	3,667	65.26	161.1	40.5	2,057	36.63	93.4	39.2
Rubber products.....	3,491	63.53	160.0	39.7	1,697	30.90	80.9	38.2
Leather products.....	3,533	57.94	136.0	42.6	1,819	29.86	76.2	39.2
Textile products (except clothing).....	3,884	65.47	156.2	41.9	1,864	31.46	80.2	39.2
Clothing (textile and fur).....	3,817	60.25	144.5	41.7	2,031	32.08	82.0	39.1
Wood products.....	2,038	62.56	143.8	43.5	1,015	31.14	79.0	39.4
Paper products.....	4,354	77.41	191.6	40.4	1,964	34.88	90.8	38.4
Printing, publishing and allied trades.....	2,879	57.12	145.7	39.2	1,526	30.30	80.1	37.8
Iron and steel products.....	3,574	65.17	161.7	40.3	1,762	32.13	83.7	38.4
Transportation equipment.....	3,713	71.01	169.5	41.9	1,827	34.95	87.1	40.1
Non-ferrous metal products.....	3,776	71.43	170.9	41.8	1,794	33.95	87.5	38.8
Electrical apparatus and supplies.....	3,489	64.32	163.6	39.3	1,877	34.58	90.3	38.3
Non-metallic mineral products.....	3,218	62.87	154.1	40.8	1,635	31.96	84.5	37.8
Products of petroleum and coal.....	3,490	68.49	177.4	38.6	1,769	34.70	96.1	36.1
Chemicals and allied products.....	3,481	67.30	171.7	39.2	1,782	34.46	91.1	37.8
Miscellaneous industries.....	3,435	63.44	154.3	41.1	1,700	31.43	83.6	37.6

Real Earnings of Employees.—When the index number representing the average yearly earnings is divided by the index number of the cost of living, on the same base, a measure of 'real' wages is obtained. Index numbers for 1940 to 1949 are given in Table 25.

25.—Average Yearly Earnings, and Index Numbers of Earnings, Cost of Living and Real Wages of Wage-Earners in Manufacturing Industries, 1940-49

NOTE.—Figures for 1931-39 are given at p. 560 of the 1947 Year Book.

Year	Wages Paid	Average Wage-Earners	Average Yearly Earnings	Index Numbers (1935-39=100)		
				Average Yearly Earnings	Cost of Living	Real Value of Average Yearly Earnings
	\$	No.	\$			
1940.....	679,273,104	626,484	1,084	116.3	105.6	110.1
1941.....	978,525,782	802,234	1,220	130.9	111.7	117.2
1942.....	1,347,934,049	974,904	1,383	148.4	117.0	126.8
1943.....	1,598,434,879	1,047,873	1,525	163.6	118.4	138.2
1944.....	1,611,555,776	1,030,324	1,564	167.8	118.9	141.1
1945.....	1,427,915,830	928,665	1,538	165.0	119.5	138.1
1946.....	1,329,811,478	877,150	1,516	162.7	123.6	131.6
1947.....	1,611,232,166	940,650	1,713	183.8	135.5	135.6
1948.....	1,876,773,231	957,491	1,960	210.3	155.0	135.7
1949.....	1,963,462,720	949,656	2,063	221.9	160.8	138.0

Percentages of Salaries and Wages to Net Value of Products.—Table 26 shows the relation between salaries and wages paid by manufacturers and the total net value of production. Figures of gross production are often used in such calculations, but the values out of which the wages of employees must come in the long run are the values added to the raw materials while they are in the factory. Such added values constitute the real production of the manufacturing plant and are alone available for payment of salaries and wages, interest, rent, taxes, repairs and all other overhead charges that ordinarily must be met. The percentage declined steadily with the increasing manufacturing production from 1924 to 1929, while from 1931 to 1935 and again in 1938 and 1939, the percentage of salaries to value added was above normal owing to decreased industrial activity. It should be borne in mind, however, that salaried employees increased 216 p.c. during the period 1924-49 while wage-earners increased 127 p.c. The percentage of wages has fluctuated much less than that of salaries. The number of wage-earning employees may be adjusted more rapidly to the activity of the industry and wage levels likewise may be adjusted more readily to the price levels of the products. Of the increase in the net value of production since 1939, 49 p.c. was passed along in increased salaries and wages.

26.—Percentages of Salaries and Wages Paid to the Total Net Values of Manufacturing Production, 1940-49

Year	Value Added by Processes of Manufacture ¹	Salaries Paid	Wages Paid	Percentages—		
				of Salaries to Value Added	of Wages to Value Added	of Total Salaries and Wages to Value Added
	\$	\$	\$	p.c.	p.c.	p.c.
1940.....	1,942,471,233	241,599,761	679,273,104	12.0	35.0	47.0
1941.....	2,605,119,783	286,336,861	973,525,782	11.0	37.6	48.6
1942.....	3,309,973,758	334,870,793	1,347,934,049	10.1	40.7	50.8
1943.....	3,816,413,541	388,857,505	1,598,434,879	10.2	42.0	52.2
1944.....	4,015,776,010	418,065,594	1,611,555,776	10.4	40.2	50.6
1945.....	3,564,315,899	417,857,619	1,427,915,830	11.7	40.1	51.8
1946.....	3,467,004,980	410,875,776	1,329,811,478	11.8	38.4	50.2
1947.....	4,292,055,802	474,693,800	1,611,232,166	11.0	37.6	48.6
1948.....	4,938,786,981	532,594,959	1,876,773,231	10.8	38.0	48.8
1949.....	5,330,566,434	628,427,937	1,963,462,720	11.8	36.8	48.6

¹ Equivalent to "net value of products"; see footnote 1, Table 1, p. 603.

Subsection 2.—Capital, Repair and Maintenance Expenditure

Prior to 1944 the following information on capital investment was collected: (1) fixed capital—land, buildings, fixtures, machinery, tools and other equipment; and (2) working capital—inventory value of raw materials, stocks in process, fuel and miscellaneous supplies on hand; inventory value of finished products; cash, bills and accounts receivable, prepaid expenses, etc. This information was replaced in 1944 by the collection of expenditure statistics on fixed capital, repairs and maintenance. Although it is now impossible to calculate the total investment in the fixed and current assets in manufacturing, it is still possible to calculate the investment in fixed assets. Total investment in fixed assets can be obtained with an approximate degree of accuracy by starting with the total investment in 1943, which amounted to \$6,317,000,000, and adding the expenditures to date and then

deducting on a straight-line basis the normal rates of depreciation allowed by the Income Tax Department. Comparative figures of the investment in fixed assets since 1939 are as follows:—

Year	Amount	Average per Employee
	\$	\$
1939.....	2,168,900,000	3,296
1943.....	3,002,900,000	2,420
1948.....	4,573,300,000	3,956
1949.....	4,921,500,000	4,202

Between 1939 and 1943 there was a decrease of \$876 in the value of fixed assets per employee, due to a decline in the replacement of and additions to buildings and equipment during the war years and also to an increase in the number of shifts worked and a resulting increase in number of employees. After the War, investment in fixed assets increased rapidly. Old plants were modernized and new plants were built to take care of expanded home markets resulting from higher purchasing power and increased population. The net result in this development was an increase of \$906 in the value of buildings and equipment per employee between 1939 and 1949.

Of the total capital expenditure by manufacturers in 1949 amounting to \$535,800,000, 17.2 p.c. was reported by the paper products group of industries, 16.5 p.c. by the food group, 11.1 p.c. by iron and steel, 8.0 p.c. by chemicals, 6.9 p.c. by the textile industries (except clothing), 6.1 p.c. by non-ferrous metal products, 5.7 p.c. by wood products, 5.6 p.c. by products of petroleum and coal, 4.6 p.c. by transportation equipment, 4.2 p.c. by printing, publishing and allied trades, and 4.1 p.c. by non-metallic mineral products.

27.—Capital, Repair and Maintenance Expenditure by the Manufacturing Industries, by Provinces and Industrial Groups, 1949, with Totals for 1944-49

Year and Province	Capital Expenditure			Repair and Maintenance Expenditure		
	Con- struction	Machinery and Equipment	Total	Con- struction	Machinery and Equipment	Total
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
1944.....	61.3	150.1 ¹	211.4	60.7	173.5	234.2
1945.....	75.9	204.2 ¹	280.1	63.1	170.6	233.7
1946.....	132.2	205.0	337.2	56.8	164.3	221.1
1947.....	184.7	343.2	527.9	62.4	210.7	273.1
1948.....	184.8	394.2	579.0	78.9	253.9	332.8
1949						
PROVINCE						
Newfoundland.....	2.3	6.0	8.3	1.5	3.6	5.1
Prince Edward Island.....	0.1	0.2	0.3	0.1	0.1	0.2
Nova Scotia.....	3.4	5.5	8.9	2.7	7.5	10.2
New Brunswick.....	2.6	10.0	12.6	1.2	6.5	7.7
Quebec.....	50.4	113.8	164.2	19.1	80.6	99.7
Ontario.....	63.1	177.1	240.2	30.0	127.3	157.3
Manitoba.....	3.6	9.9	13.5	2.3	6.5	8.8
Saskatchewan.....	3.5	7.0	10.5	0.6	2.4	3.0
Alberta.....	4.4	8.5	12.9	1.6	6.1	7.7
British Columbia.....	23.2	41.2	64.4	7.6	26.6	34.2
Totals, 1949.....	156.6	379.2	535.8	66.7	267.2	333.9

¹ Includes allowance for capital items charged to operating expense of \$18,000,000 in 1944 and \$23,900,000 in 1945.

27.—Capital, Repair and Maintenance Expenditure by the Manufacturing Industries, by Provinces and Industrial Groups, 1949, with Totals for 1944-49—concluded.

Year and Industrial Group	Capital Expenditure			Repair and Maintenance Expenditures		
	Con- struction	Machinery and Equipment	Total	Con- struction	Machinery and Equipment	Total
1949—concluded	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
INDUSTRIAL GROUP						
Food and beverages.....	27.7	60.8	88.5	10.4	30.7	41.1
Tobacco and tobacco products..	0.3	2.0	2.3	0.4	1.3	1.7
Rubber products.....	1.7	5.6	7.3	0.6	4.4	5.0
Leather products.....	0.6	2.5	3.1	0.7	2.2	2.9
Textile products (except clothing)	7.0	29.9	36.9	3.6	14.9	18.5
Clothing (textile and fur).....	3.0	12.7	15.7	1.9	4.9	6.8
Wood products.....	7.5	22.9	30.4	5.7	18.2	23.9
Paper products.....	26.8	65.2	92.0	8.7	51.1	59.8
Printing, publishing and allied trades.....	6.3	16.4	22.7	1.4	3.9	5.3
Iron and steel products.....	14.6	44.9	59.5	12.4	38.9	51.3
Transportation equipment.....	6.7	18.2	24.9	5.3	20.2	25.5
Non-ferrous metal products.....	10.4	22.0	32.4	4.4	22.3	26.7
Electrical apparatus and supplies.	4.8	14.1	18.9	2.0	9.4	11.4
Non-metallic mineral products...	6.9	15.2	22.1	1.5	14.3	15.8
Products of petroleum and coal..	18.1	11.6	29.7	3.0	11.0	14.0
Chemicals and allied products...	11.9	30.9	42.8	3.9	17.3	21.2
Miscellaneous.....	2.3	4.3	6.6	0.8	2.2	3.0

Subsection 3.—Size of Manufacturing Establishments

The size of the manufacturing establishment is generally measured either by the value of product or by the number of employees, but each of these methods has its limitations. The former measure has to be adjusted for changes in the price level and, as between industries, it makes those in which the cost of raw materials is relatively high appear to operate on a larger scale. The latter takes no account of the differences in capital equipment at different times or in various industries and, obviously, the increased use of machinery may lead to an increase in production concurrently with a decrease in number of employees.

Size as Measured by Gross Value of Products.—In 1929, the 719 establishments producing over \$1,000,000 each had an aggregate value of products of \$2,516,064,954, or 62 p.c. of the total for all manufacturing establishments. In 1931 the number of plants in that category was 482, their output being valued at \$1,451,658,954, or 53 p.c. of the total. However, by 1944, war demands resulted in manufacturing establishments, with a production of \$1,000,000, increasing to 1,376 plants with an output of about 75 p.c. of the total value of manufactures. In 1946, with the decline in production of the huge war plants, the manufactures of establishments, with a production of \$1,000,000 or over, declined to 67 p.c. of the total manufactures although the number of plants increased to 1,442. In 1947 the number of plants increased to 1,716 and production to the total was 72 p.c. As a result of increased prices and expansion in the physical volume of production in the years 1947, 1948 and 1949, establishments, with a production of \$1,000,000, or over, increased to 1,926 and their contribution to the total output rose to 74 p.c.

28.—Manufacturing Establishments and Total and Average Production, classified by Value of Products Groups, 1929, 1939, 1944 and 1949

Group of Gross Values	1929 ¹			1939 ²		
	Estab- lishments	Total Production	Average per Estab- lishment	Estab- lishments	Total Production	Average per Estab- lishment
	No.	\$	\$	No.	\$	\$
Under \$25,000.....	14,024	106,735,470	7,611	15,623	120,903,054	7,739
\$ 25,000 but under \$ 50,000.....	2,802	99,529,725	35,521	2,803	99,558,383	35,519
50,000 " 100,000.....	2,209	156,308,744	70,760	2,215	156,410,769	70,614
100,000 " 200,000.....	1,688	237,532,492	140,718	1,584	225,582,130	142,413
200,000 " 500,000.....	1,519	504,218,217	331,941	1,285	390,626,844	303,990
500,000 " 1,000,000.....	636	443,597,677	697,481	689	466,441,130	676,983
1,000,000 " 5,000,000.....	601	1,217,866,089	2,026,400	520	1,091,293,939	2,098,642
5,000,000 or over.....	118	1,298,198,865	11,001,685	81	923,724,311	11,404,004
Totals and Averages.....	23,597	4,063,987,279	172,225	24,800	3,474,540,560	140,102
	1944			1949		
	No.	\$	\$	No.	\$	\$
	No.	\$	\$	No.	\$	\$
Under \$25,000.....	13,942	128,782,147	9,237	16,176	145,907,685	9,020
\$ 25,000 but under \$ 50,000.....	4,011	143,023,914	35,658	4,884	174,899,010	35,810
50,000 " 100,000.....	3,442	245,273,500	71,259	4,487	320,878,071	71,513
100,000 " 200,000.....	2,513	355,235,489	141,359	3,630	514,921,581	141,852
200,000 " 500,000.....	2,256	714,546,348	316,731	3,195	1,000,486,294	313,141
500,000 " 1,000,000.....	943	661,670,696	701,666	1,494	1,041,235,578	696,945
1,000,000 " 5,000,000.....	1,089	2,294,546,053	2,107,021	1,505	3,164,936,378	2,102,948
5,000,000 or over.....	287	4,530,614,372	15,786,113	421	6,116,328,703	14,528,097
Totals and Averages.....	28,483	9,073,692,519	318,565	35,792	12,479,593,300	348,670

¹ Includes central electric stations and dyeing, cleaning and laundry establishments.
of the Yukon and Northwest Territories.

² Exclusive

Size as Measured by Number of Employees.—In 1929, establishments employing 501 persons or over accounted for 27 p.c. of the total number of employees engaged in manufacturing. The tendency then in evidence of increasing concentration of production into larger units was checked by the depression, the proportion decreasing in 1933 to 21 p.c. (central electric stations included) but rising again to 26 p.c. in 1939. The same also held true for establishments employing 101 persons or over. In 1929 they employed 62 p.c. of the total, in 1933, 56 p.c., and in 1939, 62 p.c.

The effect of World War II on the concentration of industries into large units is illustrated by the increase in the number of establishments employing 500 hands or over. In 1939 such establishments numbered 172 and employed 26 p.c. of the employees engaged in manufacturing; by 1944 the number had increased to 383 and the percentage of total employees to 47. In a further subdivision of this group in 1944 it was found that 226 establishments employed between 500 and 999 persons, 56 between 1,000 and 1,499, and 101 employed over 1,500. There were 12 plants employing over 7,000 persons, the largest having an employment of slightly over 13,000.

As a result of the resumption of peacetime production, the larger establishments declined in size so that by 1949 only 62 establishments employed over 1,500 persons. The largest plant employed over 13,000 persons, one other employed over 8,000 and six employed between 6,000 and 8,000 persons.

29.—Manufacturing Establishments classified by Number of Employees and by Provinces, 1949

Province or Territory	Up to 500 Em- ployees	500 to 799 Em- ployees	800 to 999 Em- ployees	1,000 to 1,499 Em- ployees	1,500 or over Em- ployees	Total Em- ployees
	No.	No.	No.	No.	No.	No.
Newfoundland.....	791	—	—	1	1	793
Prince Edward Island.....	251	—	—	—	—	251
Nova Scotia.....	1,472	2	2	1	3	1,480
New Brunswick.....	1,052	6	—	1	1	1,060
Quebec.....	11,459	58	21	22	19	11,579
Ontario.....	12,777	88	21	31	34	12,951
Manitoba.....	1,514	2	—	2	2	1,520
Saskatchewan.....	962	—	—	—	—	962
Alberta.....	1,681	3	—	1	—	1,685
British Columbia.....	3,473	13	3	2	2	3,493
Yukon and Northwest Territories.....	18	—	—	—	—	18
Canada.....	35,450	172	47	61	62	35,792

30.—Establishments and Employees in Manufactures, classified by Number of Employees per Establishment, 1929, 1939, 1944 and 1949

Group of Employees	1929 ¹			1939 ²		
	Estab- lishments	Employees	Average per Estab- lishment	Estab- lishments	Employees	Average per Estab- lishment
	No.	No.	No.	No.	No.	No.
Under 5 employees.....	12,273	30,446	2.5	13,002	28,020	2.2
5 to 20 ".....	6,160	62,310	10.1	6,985	68,151	9.8
21 " 50 ".....	2,531	81,846	32.3	2,330	75,324	32.3
51 " 100 ".....	1,262	90,238	71.5	1,158	81,646	70.5
101 " 200 ".....	745	103,944	139.5	695	97,063	139.7
201 " 500 ".....	444	136,397	307.2	458	139,687	305.0
501 or over.....	182	189,253	1,040.0	172	168,168	977.7
Totals and Averages.....	23,597	694,434	29.4	24,800	658,059	26.5
	1944			1949		
	No.	No.	No.	No.	No.	No.
	No.	No.	No.	No.	No.	No.
Under 5 employees.....	13,208	29,958	2.3	16,647	34,865	2.1
5 to 14 ".....	7,111	58,404	8.2	9,133	75,482	8.3
15 " 49 ".....	4,615	124,408	27.0	5,067	159,012	26.7
50 " 99 ".....	1,622	113,869	70.2	1,905	132,069	69.3
100 " 199 ".....	900	126,192	140.2	1,114	156,084	140.1
200 " 499 ".....	644	196,707	305.4	694	213,130	307.1
500 or over.....	383	573,344	1,497.0	332	391,455	1,179.1
Head offices ³	—	—	—	—	9,110	0.1
Totals and Averages.....	28,483	1,222,882	42.9	35,792	1,171,207	32.7

¹ Includes central electric stations and dyeing, cleaning and laundry establishments.
of the Yukon and Northwest Territories.

² Exclusive of those head offices that are not located at a plant.

³ Under this heading are included only those head offices that are not located at a plant.

Size of Establishment in Leading Industries.—Table 31 summarizes the degree of concentration in some of the leading industries of Canada. Concentration is extremely marked in the case of motor-vehicles, non-ferrous metal smelting and refining, railway rolling-stock, cotton yarn and cloth, rubber goods, pulp and paper, primary iron and steel and agricultural implements and machinery. On the other

hand, the degree of concentration is low in such industries as fruit and vegetable preparations, bread and other bakery products, sawmills, furniture, butter and cheese, women's factory clothing, stock and poultry feeds and miscellaneous foods.

31.—Percentage Importance of Establishments, each Employing 200 or more Persons in the Leading Industries, 1949

Industry		Number of Such Establishments	Percentage of Total Number in the Industry	Percentage of Total Production in the Industry
1	Pulp and paper.....	68	55.3	93.0
2	Slaughtering and meat packing.....	28	17.8	75.1
3	Non-ferrous metal smelting and refining.....	11	68.7	96.4
4	Motor-vehicles.....	7	46.7	97.4
5	Petroleum products.....	13	27.7	79.5
6	Sawmills.....	22	0.3	25.8
7	Butter and cheese.....	20	1.1	19.0
8	Primary iron and steel.....	28	51.0	92.7
9	Railway and rolling-stock equipment.....	24	61.5	96.3
10	Flour mills.....	9	6.8	52.7
11	Clothing, men's factory.....	29	5.1	35.6
12	Cotton yarn and cloth.....	30	56.6	95.0
13	Bread and other bakery products.....	20	0.7	25.9
14	Clothing, women's factory.....	8	0.9	7.6
15	Rubber goods, including footwear.....	21	33.9	93.9
16	Agricultural implements and machinery.....	10	12.7	91.2
17	Motor-vehicle parts.....	21	14.0	76.8
18	Printing and publishing.....	27	3.4	62.5
19	Miscellaneous electrical products.....	15	10.3	80.3
20	Miscellaneous foods.....	1	0.3	1
21	Machinery, heavy electrical.....	14	30.4	88.7
22	Furniture.....	16	1.3	19.1
23	Sheet metal products.....	25	9.1	66.2
24	Feeds, stock and poultry, prepared.....	1	0.2	1
25	Fruit and vegetable preparations.....	4	0.8	26.2

¹ Information cannot be published.

PART II.—PROVINCIAL AND LOCAL DISTRIBUTION OF MANUFACTURING PRODUCTION

Section 1.—Provincial Distribution of Manufacturing Production

Ontario and Quebec are by far the most important manufacturing provinces of Canada. Their combined production in 1949 amounted to \$9,892,301,957 or 79 p.c. of the gross value of manufactured products.

Table 1 shows the outstanding predominance of these two Provinces in each industrial group. In 1949, Quebec led in the manufacture of tobacco and tobacco products, textiles (except clothing), clothing (textile and fur), and paper products. In each of the other groups, Ontario had the greater production. In the production of wood products, British Columbia with 34 p.c. held the dominant position, out-ranking both Ontario and Quebec which accounted for 28 and 23 p.c., respectively, of total production. In each of the other industrial groups Ontario and Quebec led by a wide margin.

1.—Summary Statistics of Manufactures of Each Province, classified by Industrial Groups, 1949

Province and Industrial Group	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Newfoundland						
Food and beverages ¹	31	929	1,587,495	5,483,199	4,070,560	9,774,601
Textile products (except clothing)...	5	99	154,232	546,378	313,760	879,803
Clothing (textile and fur).....	7	415	399,554	693,952	471,758	1,177,879
Wood products.....	681	1,474	1,135,168	2,359,051	2,066,774	4,513,578
Paper products.....	3	3,065	10,490,747	20,005,335	23,211,934	45,839,080
Printing, publishing and allied in- dustries.....	30	399	801,006	350,646	1,294,209	1,674,414
Iron and steel products.....	5	77	143,490	95,256	189,369	291,566
Transportation equipment.....	5	41	68,496	65,770	53,781	122,582
Non-metallic mineral products.....	11	107	162,672	231,599	309,974	574,737
Chemicals and allied products.....	8	95	186,636	627,873	313,132	953,020
Miscellaneous manufacturing in- dustries.....	3	48	60,952	51,968	44,947	97,182
All other groups ²	4	185	295,888	717,146	578,578	1,365,840
Totals, Newfoundland	793	6,934	15,486,336	31,228,173	32,918,776	67,264,282
Prince Edward Island						
Food and beverages.....	126	1,060	1,236,906	10,380,676	2,477,693	13,044,094
Wood products.....	95	256	211,715	518,322	428,094	963,272
Printing, publishing and allied industries.....	10	161	265,784	123,207	397,467	531,274
Iron and steel products.....	6	118	181,243	203,914	216,216	438,010
Transportation equipment.....	4	6	2,400	2,685	2,858	5,980
All other groups ²	10	146	235,507	2,308,440	815,992	3,140,570
Totals, Prince Edward Island ...	251	1,747	2,133,555	13,537,144	4,338,320	18,123,200
Nova Scotia						
Food and beverages.....	404	7,620	10,752,486	41,160,557	26,040,284	68,453,689
Leather products.....	6	105	137,142	229,370	254,502	487,227
Textile products (except clothing)...	10	667	1,201,014	2,975,645	2,396,100	5,509,288
Clothing (textile and fur).....	15	1,551	2,067,946	4,347,399	3,596,134	8,077,558
Wood products.....	742	4,550	5,538,173	12,793,647	10,028,295	23,158,567
Paper products.....	7	1,187	3,079,082	5,242,610	7,648,191	14,193,958
Printing, publishing and allied in- dustries.....	116	1,329	2,366,026	1,814,509	4,503,126	6,399,265
Iron and steel products.....	52	6,575	16,429,528	23,114,779	22,304,017	48,452,593
Transportation equipment.....	77	3,698	8,123,148	13,304,041	12,845,950	26,667,492
Non-metallic mineral products.....	25	605	1,113,225	751,192	2,212,825	3,414,368
Products of petroleum and coal.....	3	1,023	3,034,511	27,038,390	7,949,780	37,049,404
Chemicals and allied products.....	15	313	693,564	3,008,694	2,363,514	5,502,082
Miscellaneous ¹	8	88	150,732	61,156	151,580	226,898
Totals, Nova Scotia	1,480	29,311	54,686,577	135,841,899	102,294,298	247,592,389
New Brunswick						
Food and beverages.....	330	6,821	9,730,471	64,450,718	23,546,782	89,641,122
Leather products.....	11	320	468,622	1,029,309	870,744	1,916,069
Textile products (except clothing)...	13	1,709	3,448,759	5,281,981	5,119,271	10,643,167
Clothing (textile and fur).....	6	277	378,030	569,820	582,999	1,176,931
Wood products.....	535	4,878	7,083,537	17,724,080	11,677,426	29,737,730
Paper products.....	13	3,569	10,305,617	27,036,167	28,669,520	60,791,031
Printing, publishing and allied in- dustries.....	65	781	1,458,230	1,007,214	2,868,285	3,936,327
Iron and steel products.....	31	1,341	2,680,410	3,977,747	4,933,764	9,086,486
Transportation equipment.....	12	2,281	5,718,291	4,739,344	6,168,849	11,199,442
Non-metallic mineral products.....	24	433	792,907	1,097,958	2,021,907	3,564,408
Chemicals and allied products.....	7	145	353,743	3,445,129	1,011,250	4,520,183
Miscellaneous ²	13	891	1,801,202	1,444,786	3,716,578	5,293,275
Totals, New Brunswick	1,060	23,446	44,219,819	131,804,253	91,187,375	231,506,191

For footnotes, see end of table, p. 644.

1.—Summary Statistics of Manufactures of Each Province, classified by Industrial Groups, 1949—continued

Province and Industrial Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
Quebec	No.	No.	\$	\$	\$	\$
Food and beverages.....	2,766	41,305	77,768,234	489,374,625	204,840,084	704,637,909
Tobacco and tobacco products.....	14	8,721	18,087,275	58,170,678	50,280,659	108,814,975
Rubber products.....	24	6,130	12,943,676	13,819,655	18,570,906	33,058,841
Leather products.....	390	18,509	29,085,375	50,071,138	43,817,637	94,456,056
Textile products (except clothing).....	389	43,761	86,710,721	181,760,370	159,995,551	348,491,556
Clothing (textile and fur).....	1,719	65,262	111,664,749	208,954,022	200,067,810	410,747,691
Wood products.....	3,256	32,184	51,653,676	104,364,200	86,425,725	193,120,347
Paper products.....	183	30,833	82,421,877	203,384,629	218,536,513	454,556,073
Printing, publishing and allied industries.....	1,020	16,231	37,327,057	33,731,460	67,174,172	101,634,243
Iron and steel products.....	528	35,541	82,866,039	104,037,123	156,064,609	266,236,243
Transportation equipment.....	108	27,271	69,183,380	102,037,206	98,203,364	203,662,323
Non-ferrous metal products.....	164	14,714	36,559,662	194,219,295	98,403,326	313,321,567
Electrical apparatus and supplies.....	74	15,841	38,272,660	46,573,067	69,933,425	117,548,820
Non-metallic mineral products.....	276	7,868	17,192,499	21,507,934	38,814,500	68,213,172
Products of petroleum and coal.....	12	3,061	8,348,618	121,951,765	29,467,305	160,354,569
Chemicals and allied products.....	334	15,514	36,348,846	76,966,471	86,098,853	167,323,336
Miscellaneous.....	292	7,529	13,144,926	16,870,005	24,935,229	42,319,402
Totals, Quebec.....	11,579	390,275	809,579,270	2,027,793,643	1,651,629,668	3,788,497,123
Ontario						
Food and beverages.....	3,238	70,082	141,862,604	804,423,139	360,567,091	1,181,238,232
Tobacco and tobacco products.....	22	1,814	3,580,969	54,563,641	7,702,622	62,425,547
Rubber products.....	31	14,556	35,143,042	60,046,190	83,025,528	145,296,510
Leather products.....	265	14,661	27,828,964	62,208,579	42,892,248	106,231,028
Textile products (except clothing).....	358	29,729	61,529,964	135,795,758	112,180,199	252,196,403
Clothing (textile and fur).....	1,030	41,252	76,997,764	124,932,351	122,733,319	249,185,397
Wood products.....	2,707	35,472	67,370,664	117,185,554	113,808,715	233,648,357
Paper products.....	255	30,299	81,151,360	192,885,092	192,064,749	405,105,627
Printing, publishing and allied industries.....	1,566	31,062	72,952,010	67,685,469	127,898,729	197,122,340
Iron and steel products.....	1,201	106,085	278,192,714	442,018,700	518,611,245	987,900,466
Transportation equipment.....	237	59,069	157,903,127	431,586,319	313,002,034	751,775,755
Non-ferrous metal products.....	300	24,381	62,666,953	223,182,968	165,629,564	404,637,350
Electrical apparatus and supplies.....	246	38,905	96,640,088	161,768,924	194,192,995	359,303,073
Non-metallic mineral products.....	479	14,661	35,396,660	43,183,045	78,732,632	133,261,802
Products of petroleum and coal.....	31	7,272	19,885,945	136,694,019	55,371,633	201,371,342
Chemicals and allied products.....	530	21,153	52,650,741	158,607,175	158,364,525	330,495,870
Miscellaneous.....	455	16,734	33,790,865	39,687,995	61,776,095	102,606,735
Totals, Ontario.....	12,951	557,190	1,305,544,434	3,256,454,918	2,708,554,013	6,103,804,834
Manitoba						
Food and beverages.....	368	10,626	22,799,729	170,262,196	51,163,022	223,914,254
Leather products.....	33	681	1,091,116	2,516,030	1,612,087	4,157,636
Textile products (except clothing).....	22	779	1,261,078	5,782,362	1,938,840	7,787,042
Clothing (textile and fur).....	171	6,383	10,904,059	23,541,076	17,609,981	41,301,409
Wood products.....	321	3,203	5,756,836	11,219,855	10,387,698	21,869,433
Paper products.....	20	1,345	3,096,632	9,036,170	11,535,775	21,499,529
Printing, publishing and allied industries.....	266	3,832	7,945,326	7,172,799	15,038,514	22,408,017
Iron and steel products.....	119	4,774	10,673,633	14,257,386	19,409,416	34,585,128
Transportation equipment.....	23	6,662	14,947,279	20,903,997	17,112,707	38,668,066
Non-ferrous metal products.....	20	469	1,153,516	13,477,877	2,968,843	16,899,502
Electrical apparatus and supplies.....	17	634	1,167,992	2,684,977	3,197,303	5,547,095
Non-metallic mineral products.....	47	892	1,992,108	2,612,887	5,291,166	9,396,732
Products of petroleum and coal.....	4	436	896,890	7,611,862	2,476,044	10,496,778
Chemicals and allied products.....	43	768	1,530,349	7,297,881	5,822,564	13,244,323
Miscellaneous.....	46	472	871,837	724,143	1,771,535	2,566,967
Totals, Manitoba.....	1,520	41,956	86,088,380	299,101,498	167,335,495	474,681,912
Saskatchewan						
Food and beverages.....	241	5,299	11,169,917	92,880,011	28,468,953	122,775,778
Textile products (except clothing).....	5	119	229,009	1,022,420	341,842	1,377,687
Clothing (textile and fur).....	14	185	314,607	735,279	554,092	1,294,863
Wood products.....	396	1,505	2,113,558	4,248,549	4,226,574	8,621,459
Paper products.....	3	17	29,515	39,440	79,950	120,600
Printing, publishing and allied industries.....	190	1,409	2,876,773	1,870,034	4,524,703	6,496,472
Iron and steel products.....	48	703	1,337,912	2,344,591	2,124,614	4,550,760
Transportation equipment.....	6	28	68,660	81,448	108,761	195,515

For footnotes, see end of table, p. 644.

1.—Summary Statistics of Manufactures of Each Province, classified by Industrial Groups, 1949—concluded

Province, Territory and Industrial Group	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Saskatchewan—concluded						
Non-metallic mineral products.....	29	376	781,263	667,992	1,690,146	2,493,155
Products of petroleum and coal.....	7	552	1,514,829	30,632,381	2,284,070	34,258,225
Chemicals and allied products.....	11	220	577,946	4,115,150	1,410,748	5,574,878
Miscellaneous ⁷	12	428	1,249,953	25,712,046	1,542,496	27,993,316
Totals, Saskatchewan.....	962	10,841	22,273,942	164,349,341	47,356,949	215,742,708
Alberta						
Food and beverages.....	413	9,672	20,889,415	160,075,453	50,989,990	212,814,096
Leather products.....	11	58	87,630	110,624	94,701	207,702
Textile products (except clothing)...	12	163	260,572	1,543,860	423,107	1,978,737
Clothing (textile and fur).....	30	944	1,352,564	3,260,849	2,860,054	6,139,307
Wood products.....	749	5,351	8,562,683	21,132,853	15,208,345	36,958,841
Paper products.....	4	125	254,607	1,189,524	721,197	1,918,721
Printing, publishing and allied in- dustries.....	236	1,990	4,425,677	3,037,784	8,503,518	11,637,919
Iron and steel products.....	100	2,164	4,777,353	5,480,232	8,224,418	13,873,026
Transportation equipment.....	20	2,352	5,794,925	6,179,695	6,117,212	12,494,604
Non-ferrous metal products.....	5	60	137,966	610,877	283,925	901,792
Electrical apparatus and supplies.....	3	11	15,681	14,707	24,033	40,400
Non-metallic mineral products.....	53	1,873	4,020,701	4,704,110	8,908,096	14,758,576
Products of petroleum and coal.....	8	923	2,618,791	40,372,763	6,645,083	48,210,148
Chemicals and allied products.....	20	599	1,592,201	3,452,467	5,153,128	9,318,559
Miscellaneous ⁸	16	140	324,788	198,261	524,489	742,692
Totals, Alberta.....	1,685	26,425	55,115,554	251,364,059	114,681,296	371,995,120
British Columbia						
Food and beverages.....	636	16,595	34,715,896	170,730,746	81,820,576	256,224,205
Tobacco and tobacco products.....	3	9	6,811	5,341	7,278	12,717
Rubber products.....	4	32	67,790	24,625	82,756	115,695
Leather products.....	26	531	944,474	1,623,837	1,539,254	3,189,863
Textile products (except clothing)...	31	685	1,281,438	3,907,78	2,576,753	6,570,711
Clothing (textile and fur).....	65	1,471	2,417,409	4,085,285	4,249,889	8,373,781
Wood products.....	1,702	32,717	75,399,242	144,944,072	139,515,573	287,455,282
Paper products.....	36	6,031	17,509,184	35,481,534	49,820,807	89,035,707
Printing, publishing and allied in- dustries.....	365	4,630	11,049,418	7,886,387	17,929,070	26,028,918
Iron and steel products.....	257	6,244	15,945,231	23,969,528	28,856,581	53,731,447
Transportation equipment.....	104	3,342	9,042,405	5,163,925	12,913,648	18,419,571
Non-ferrous metal products.....	38	4,273	11,991,477	79,620,245	18,626,460	101,133,059
Electrical apparatus and supplies.....	24	471	1,090,267	1,388,572	1,955,911	3,376,502
Non-metallic mineral products.....	69	1,310	3,116,771	3,629,812	5,842,715	10,711,596
Products of petroleum and coal.....	9	1,178	3,197,788	26,197,986	13,213,284	40,868,660
Chemicals and allied products.....	67	2,479	6,673,369	21,252,014	27,269,368	48,859,931
Miscellaneous.....	57	936	1,950,752	1,200,054	3,545,425	4,900,443
Totals, British Columbia.....	3,493	82,934	196,403,722	531,112,329	409,665,348	959,008,088
Yukon and N.W.T.						
Food and beverages.....	5	15	23,166	24,742	32,512	63,773
Wood products.....	7	42	77,392	147,270	155,539	308,768
All other groups ⁹	6	91	258,510	471,795	416,845	1,004,912
Totals, Yukon and N.W.T.....	18	148	359,068	643,807	604,896	1,377,453

¹ Exclusive of fish processing in Newfoundland.² Includes tobacco and tobacco products, leather products and products of petroleum and coal, figures for which are confidential and cannot be published separately.³ Includes tobacco products, leather products, textile products, clothing, non-metallic mineral products and chemicals and allied products, figures for which are confidential and cannot be published separately.⁴ Includes electrical apparatus and supplies, figures for which are confidential and cannot be published separately.⁵ Includes non-ferrous metal products and products of petroleum and coal, figures for which are confidential and cannot be published separately.⁶ Includes rubber products, figures for which are confidential and cannot be published separately.⁷ Includes leather products and non-ferrous metal products, figures for which are confidential and cannot be published separately.⁸ Includes printing, publishing and allied trades; non-ferrous metal products; products of petroleum and coal; and miscellaneous industries, figures for which are confidential and cannot be published separately.

The degree of concentration of manufacturing production in large units is illustrated in Table 2. In 1949, Newfoundland had 42 p.c. of all persons engaged in manufacturing employed in establishments having 500 or more employees, as compared with 34 p.c. for Canada as a whole. Prior to the entry of Newfoundland into Confederation, Ontario had the greatest concentration in the largest units; in 1949 it ranked second with 37.3 p.c. of its employees in the largest units. Quebec ranked third with 36.7 p.c. followed by Nova Scotia with 31 p.c., New Brunswick 29 p.c., British Columbia 23 p.c., Manitoba 20 p.c. and Alberta 12 p.c. There were no plants in either Prince Edward Island or Saskatchewan employing 500 or more persons.

2.—Concentration of Manufacturing Production in each Province, 1949

Province or Territory	Number of Establishments Employing 500 or More Persons	Percentage of Total Number of Establishments in Province	Provincial Percentage of Number of Employees Accounted for by these Establishments
Newfoundland.....	2	0.3	42.0
Prince Edward Island.....	—	—	—
Nova Scotia.....	8	0.5	31.2
New Brunswick.....	8	0.8	29.0
Quebec.....	120	1.0	36.7
Ontario.....	174	1.3	37.3
Manitoba.....	6	0.4	19.8
Saskatchewan.....	—	—	—
Alberta.....	4	0.2	12.0
British Columbia.....	20	0.6	23.1
Yukon and Northwest Territories.....	—	—	—
Canada	342	1.0	34.2

Subsection 1.—The Manufactures of the Atlantic Provinces

Manufacturing production in Newfoundland is dominated by the forest and fisheries resources. Pulp and paper is the leading industry followed by sawmilling, these two industries together accounting for 71 p.c. of the total production of the Province in 1949. No information is available regarding the processing of fish products and the position of that industry in 1949 in the economy of the Province cannot be evaluated.

In Prince Edward Island the predominant fishery and agricultural resources make fish curing, and packing, and butter and cheese the leading manufactures of the Province. Nova Scotia is renowned for its coal mines and its fisheries as well as extensive forests and agricultural lands and is favoured with easy access by sea to the high-grade iron-ore supply of Newfoundland. On these resources are based the

leading manufactures of fish curing and packing, primary iron and steel, sawmills, shipbuilding and repairs, pulp and paper, and butter and cheese. The forests of New Brunswick give a leading place to its pulp and paper and sawmilling industries, while fish and agricultural products add to the varied output.

3.—Statistics of the Leading Industries of the Atlantic Provinces, 1949

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
NEWFOUNDLAND						
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	3	3,065	10,490,747	20,005,335	23,211,934	45,839,080
2 Sawmills.....	536	938	478,594	955,177	1,078,205	2,080,942
3 Planing mills, sash, doors, etc....	20	243	396,487	1,164,125	685,704	1,874,921
4 Bread and other bakery products.	11	192	297,477	1,115,414	661,647	1,817,413
5 Breweries.....	3	110	239,332	274,097	1,114,416	1,444,207
6 Printing and publishing.....	6	207	506,849	178,206	912,499	1,110,107
7 Clothing, men's factory.....	6	397	358,454	623,952	434,808	1,070,429
8 All other leading industries ¹	4	475	698,619	1,620,092	1,287,698	2,988,173
Totals, Leading Industries....	589	5,627	13,466,559	25,936,398	29,386,911	58,225,172
Totals, All Industries.....	793	6,934	15,486,336	31,228,173	32,918,776	67,264,282
PRINCE EDWARD ISLAND						
	No.	No.	\$	\$	\$	\$
1 Butter and cheese.....	23	161	255,443	3,136,907	464,539	3,646,979
2 Fish processing.....	62	474	357,606	2,145,904	663,922	2,857,029
3 Feeds, stock and poultry, prepared	6	30	51,225	656,353	102,630	764,656
4 Fruit and vegetable preparations..	7	116	89,861	442,975	149,791	602,029
5 Printing and publishing.....	4	143	253,865	114,297	384,397	508,114
6 Sawmills.....	85	149	85,605	250,043	245,299	506,591
7 Bread and other bakery products.	11	75	100,545	214,390	138,629	367,626
8 Sash, door and planing mills.....	4	61	78,627	210,185	120,695	334,108
9 Aerated waters.....	6	32	46,376	114,743	179,670	304,288
10 All other leading industries ²	4	226	438,332	5,675,749	1,366,254	7,095,179
Totals, Leading Industries....	212	1,467	1,757,485	12,961,546	3,815,826	16,986,599
Totals, All Industries.....	251	1,747	2,133,555	13,537,144	4,338,320	18,123,260
NOVA SCOTIA						
	No.	No.	\$	\$	\$	\$
1 Fish processing.....	212	3,841	4,872,586	21,625,288	12,494,684	34,564,126
2 Primary iron and steel.....	5	4,832	12,544,691	17,965,217	12,942,445	33,501,905
3 Sawmills.....	598	2,907	3,064,804	7,343,008	6,056,690	13,562,282
4 Pulp and paper.....	4	1,029	2,857,811	4,471,776	7,224,548	12,985,803
5 Shipbuilding.....	21	2,350	5,271,861	5,105,180	7,399,711	12,746,387
6 Railway rolling-stock.....	3	925	2,183,856	7,847,584	4,632,905	12,730,507
7 Butter and cheese.....	23	639	1,004,348	6,055,068	2,227,947	8,438,285
8 Bread and other bakery products.	81	787	1,231,572	3,075,342	2,530,572	5,807,881
9 Sash, door and planing mills.....	72	954	1,507,093	3,120,819	2,508,785	5,714,988
10 Confectionery.....	9	970	1,287,428	2,642,483	2,767,829	5,480,194
11 Miscellaneous iron and steel prod- ucts.....	3	509	1,287,887	2,506,223	2,521,811	5,265,901
12 Knitted goods other than hosiery ³	3	724	1,054,773	2,290,092	3,043,663	4,403,741
13 Printing and publishing.....	31	844	1,533,187	1,046,471	3,124,762	4,232,163
14 Aerated waters.....	29	333	551,056	1,171,067	1,935,865	3,192,487
15 Fruit and vegetable preparations..	17	418	589,121	1,335,143	1,152,016	2,575,232
16 Fertilizers.....	3	88	160,872	1,933,175	401,500	2,347,758
17 Miscellaneous foods.....	7	151	248,051	1,803,465	450,137	2,279,036
18 Clothing, men's factory.....	7	408	448,165	1,266,788	972,265	2,251,959
19 All other leading industries ⁴	7	1,931	5,187,262	30,067,915	15,101,837	47,417,056
Totals, Leading Industries....	1,135	24,640	46,866,414	122,672,104	88,489,972	219,497,691
Totals, All Industries.....	1,480	29,311	54,686,577	135,841,899	102,294,298	247,592,389

For footnotes, see end of table.

3.—Statistics of the Leading Industries of the Atlantic Provinces, 1949—concluded *

Industry	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
NEW BRUNSWICK						
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	7	3,354	9,959,140	25,747,143	27,928,588	58,722,370
2 Sawmills.....	420	3,152	4,145,339	10,295,073	7,400,665	17,858,803
3 Fish processing.....	153	2,663	2,605,959	9,164,723	4,317,125	13,879,841
4 Slaughtering and meat packing.....	3	337	778,843	7,451,237	2,186,643	9,704,340
5 Butter and cheese.....	34	513	775,921	6,330,052	1,896,986	8,384,892
6 Miscellaneous foods.....	8	242	344,927	5,993,249	1,724,560	7,732,351
7 Sash, door and planing mills.....	64	1,126	1,959,964	4,851,022	2,779,698	7,731,402
8 Bread and other bakery products.....	67	727	1,136,474	2,783,159	2,120,478	5,083,737
9 Heating and cooking apparatus.....	3	783	1,621,926	1,772,880	2,997,024	4,862,547
10 Feeds, stock and poultry, prepared.....	9	142	274,235	4,305,952	462,588	4,799,158
11 Fertilizers.....	3	127	318,375	3,404,960	868,354	4,323,970
12 Biscuits.....	3	593	825,479	1,832,678	1,882,712	3,763,809
13 Printing and publishing.....	18	536	1,083,706	599,292	2,214,575	2,857,923
14 Confectionery.....	5	364	541,812	1,256,059	975,890	2,267,897
15 All other leading industries ¹	12	5,479	12,505,451	35,334,609	21,702,371	58,413,189
Totals, Leading Industries...	809	20,135	38,877,551	121,122,088	81,458,257	210,386,229
Totals, All Industries.....	1,060	23,446	44,219,819	131,804,253	91,187,375	231,506,191

¹ Includes: biscuits; and tobacco, cigars and cigarettes.² Includes: bags, cotton and jute; fertilizers; slaughtering and meat packing.³ Not comparable with previous years.⁴ Includes: cotton yarn and cloth; wire and wire goods; coke and gas; petroleum products; and breweries.⁵ Includes: breweries; sugar refineries; cotton yarn and cloth; synthetic textiles and silk; railway rolling-stock; shipbuilding and repairs; brooms, brushes and mops; brass and copper products; and gypsum products.

Subsection 2.—The Manufactures of Quebec

Quebec contributes about 30 p.c. of the total value of manufactured products of Canada. Quebec's forests, water powers, minerals and agricultural lands, and also its geographic position astride the St. Lawrence estuary permitting sea-going vessels to reach its main centres of population, are among the assets that have tended to develop manufacturing industries. In addition, Quebec has a stable and industrious population, an important factor in industries such as textiles, clothing, leather boots and shoes, etc., in which large labour forces are required. The production of pulp and paper occupies the premier position, accounting for about 10 p.c. of the gross value of Quebec manufactures and for about 45 p.c. of the Canadian total for this industry. Other large industries in which Quebec predominates are: tobacco, cigars and cigarettes with 92 p.c. of the Canadian total; synthetic textiles and silk 72 p.c.; cotton yarn and cloth 66 p.c.; women's factory clothing 65 p.c.; aircraft and parts 64 p.c.; leather boots and shoes 60 p.c.; men's factory clothing 57 p.c.; miscellaneous electrical apparatus 51 p.c.; railway rolling-stock 49 p.c.; and pulp and paper 45 p.c.

Quebec also predominates in a large number of the smaller industries. For instance, the candle industry of Quebec contributed 95 p.c. of the Canadian total; men's clothing contractors 89 p.c.; women's clothing contractors 82 p.c.; cotton thread 81 p.c.; lasts, trees and shoe findings 78 p.c.; children's clothing 76 p.c.; dyeing and finishing of textiles 75 p.c.; oiled and waterproofed clothing 74 p.c.; oilcloth, linoleum and other coated fabrics 73 p.c.; narrow fabrics 73 p.c.; leather boot and shoe findings 72 p.c.; embroidery, pleating and hemstitching 71 p.c.; miscellaneous clothing 69 p.c.; asbestos products 67 p.c.; artificial flowers and feathers 67 p.c.; processed cheese 67 p.c.; fur dressing and dyeing 66 p.c.; and fabric gloves and mittens 66 p.c.

4.—Statistics of the Leading Industries of the Province of Quebec, 1949

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	54	22,745	67,103,568	158,394,062	183,841,476	374,146,335
2 Non-ferrous metal smelting and refining.....	6	7,172	19,591,072	136,417,932	66,389,720	222,495,803
3 Slaughtering and meat packing.....	37	3,673	8,841,363	125,805,766	20,863,700	147,470,540
4 Petroleum products.....	6	2,192	5,963,285	113,897,599	24,258,556	143,997,735
5 Cotton yarn and cloth.....	19	16,262	31,494,809	84,223,774	52,010,148	138,702,495
6 Clothing, women's factory ¹	538	18,399	33,748,783	68,285,650	62,923,383	131,480,315
7 Clothing, men's factory.....	339	17,881	30,979,672	68,955,515	56,378,176	125,685,676
8 Railway rolling-stock.....	12	15,698	40,836,867	64,990,314	54,262,527	121,591,511
9 Tobacco, cigars and cigarettes.....	39	8,153	17,274,460	55,059,416	49,184,757	104,576,208
10 Butter and cheese.....	807	5,980	9,856,181	81,723,442	17,708,020	101,086,380
11 Synthetic textiles and silk.....	36	12,399	25,732,270	32,223,166	54,589,992	88,935,331
12 Electrical apparatus and supplies, n.e.s. ¹	31	11,200	27,381,472	29,372,978	51,737,673	81,852,969
13 Boots and shoes, leather.....	179	13,927	22,040,969	37,180,192	32,545,772	70,042,519
14 Sawmills.....	1,916	10,426	13,602,802	42,260,785	26,702,984	69,624,009
15 Bread and other bakery products.....	1,024	9,014	15,109,489	28,967,604	24,756,608	55,580,081
16 Miscellaneous foods.....	77	1,980	3,823,989	38,320,395	16,046,003	54,677,927
17 Furniture.....	373	8,912	16,804,337	22,121,317	27,020,578	49,675,435
18 Feeds, stock and poultry, prepared	123	1,240	2,292,551	38,089,407	5,713,205	44,109,824
19 Machinery, industrial ¹	57	6,081	14,640,436	15,559,411	27,382,232	43,615,821
20 Brass and copper products.....	41	3,000	6,857,362	28,769,819	12,230,856	41,613,642
21 Printing and publishing.....	81	6,210	15,175,913	11,925,680	29,119,881	41,345,364
22 Breweries.....	8	2,701	7,684,792	12,335,997	27,091,604	40,210,113
23 Aircraft.....	5	5,847	14,874,733	17,428,051	21,280,768	39,163,442
24 Sheet metal products.....	66	4,533	10,475,441	20,009,715	18,539,445	38,957,628
25 Primary iron and steel.....	12	4,017	10,434,878	13,111,376	21,008,587	36,556,230
26 Boxes and bags, paper.....	49	4,039	7,101,286	20,386,520	13,614,456	34,225,160
27 Rubber goods, including rubber footwear.....	24	6,130	12,943,676	13,819,655	18,570,906	33,058,841
28 Sash, door and planing mills.....	669	5,441	8,737,691	18,776,211	13,620,822	32,946,063
29 Shipbuilding.....	12	4,461	11,048,142	14,475,899	17,696,515	32,703,087
30 Aerated waters.....	171	2,738	5,107,358	11,035,405	19,922,652	31,522,510
31 Printing and bookbinding.....	496	6,334	13,678,183	10,357,475	20,778,022	31,472,833
32 Knitted goods other than hosiery ¹	69	4,974	7,572,858	16,321,992	14,599,042	31,281,093
33 Medicinal and pharmaceutical preparations.....	95	3,595	7,751,144	9,741,764	20,627,270	30,716,460
34 Fur goods.....	298	3,294	6,646,712	18,559,662	11,087,154	29,750,937
35 Castings, iron.....	58	3,944	9,594,199	13,128,656	15,692,156	29,463,754
36 Confectionery.....	52	2,555	4,307,873	14,958,612	13,477,543	28,726,937
37 Acids, alkalies and salts.....	9	2,652	7,476,397	9,697,380	16,658,770	28,715,261
38 Paints, varnishes and lacquers.....	33	2,837	6,248,096	14,278,995	14,041,393	28,553,478
39 Miscellaneous paper goods.....	72	2,576	4,901,517	15,943,619	11,420,551	27,578,597
40 Distilled liquors.....	8	1,661	4,014,297	10,600,968	15,977,118	27,453,981
Totals, Leading Industries²...	8,001	276,873	589,750,923	1,557,512,176	1,221,371,021	2,865,365,325
Totals, All Industries.....	11,579	390,275	809,579,270	2,027,793,643	1,651,629,668	3,788,497,123
Percentages of leading industries to all industries.....	69.1	70.9	72.5	76.8	73.9	75.6

¹ Not comparable with previous years.² Sugar refining is also a leading industry, but statistics cannot be published because there are fewer than three establishments.

Subsection 3.—The Manufactures of Ontario

The gross value of the manufactured products of Ontario in 1949 represented about 49 p.c. of the total for all Canada. This premier position in manufacturing has been maintained fairly uniformly by Ontario, as the following percentages show: 1926, 52 p.c.; 1918, 53 p.c.; 1910, 50 p.c.; 1900, 50 p.c.; 1890, 51 p.c.; and 1880, 51 p.c. Despite the rapid industrial development in recent years in other provinces, such as Quebec, British Columbia and Manitoba, Ontario has maintained a manufacturing production roughly equal to that of the remainder of Canada.

The geographic position of Ontario on the Great Lakes waterway system, by means of which the iron ore of Minnesota and the coal of Pennsylvania are readily accessible; the wide range of natural resources of forests, minerals, water power,

and agriculture; large population and excellent water and rail transportation facilities to other parts of the country—all have encouraged industrial development. Other factors have been proximity to one of the most densely populated sections of the United States and the establishment within the Province of branch factories of such United States industries as automobile manufacturing.

Ontario also has the greatest diversification of manufacturing production of any province. Certain industries, such as the manufacture of motor-vehicles, motor-vehicle parts, agricultural implements, heavy electrical machinery, starch and glucose, machine tools, bicycles and parts, miscellaneous non-ferrous metal products and carpets, mats and rugs, are carried on almost exclusively in Ontario. Of the 40 leading industries in 1949, a substantial number were dominated by Ontario's share of the total production. These industries, with the percentage which the Ontario production of each bears to the 1949 total for Canada, are: motor-vehicle parts 98; motor-vehicles 97; agricultural implements 96; heavy electrical machinery 95; rubber goods 81; primary iron and steel 74; iron castings 69; miscellaneous paper products 63; coke and gas products 62; sheet metal products 60; industrial machinery 59; brass and copper products 58; printing and bookbinding 58; confectionery 57; paper boxes and bags 56; miscellaneous foods 53; furniture 52; and flour mills 50.

In the case of the smaller industries, too, Ontario dominates the field. In 27 such industries in 1949 Ontario contributed more than 75 p.c. of the Canadian total. These are: machine tools 100; starch and glucose 98; bicycles and parts 96; miscellaneous non-ferrous metal products 96; carpets, mats and rugs 95; tobacco processing and packing 93; typewriter supplies 92; soaps, washing compounds and cleaning preparations 90; wine 87; breakfast foods 87; inks 87; artificial abrasives 86; leather tanning 86; scientific and professional equipment 86; automobile accessories, fabric 84; animal oils and fats 84; batteries 83; refrigerators, vacuum cleaners and appliances 82; woollen yarn 81; cordage, rope and twine 81; feed mills 79; toys and games 79; boilers and plate work 76; household, office and store machinery 76; sporting goods 76; jewellery and silverware 75; and miscellaneous cotton goods 75.

5.—Statistics of the Leading Industries of the Province of Ontario, 1949

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Motor-vehicles.....	9	26,133	74,518,788	295,431,447	177,739,592	476,084,443
2 Slaughtering and meat packing...	67	7,907	20,149,051	221,559,445	42,384,481	265,291,727
3 Pulp and paper.....	44	16,793	51,576,946	113,684,748	131,665,455	264,183,400
4 Non-ferrous metal smelting and refining.....	8	7,694	22,913,994	128,962,570	95,400,693	237,688,169
5 Primary iron and steel.....	24	18,981	56,947,264	112,717,545	97,652,204	226,993,285
6 Agricultural implements.....	39	15,404	41,987,161	92,247,074	75,232,179	169,450,644
7 Motor-vehicle parts.....	97	17,191	44,152,651	86,523,901	78,914,176	167,723,543
8 Machinery, heavy electrical ¹	32	18,365	49,012,729	61,285,674	87,914,477	150,780,791
9 Rubber goods, including footwear.....	31	14,556	35,143,042	60,046,190	83,025,528	145,296,510
10 Petroleum products.....	16	4,251	11,903,392	101,321,991	34,187,465	141,427,763
11 Butter and cheese.....	686	8,526	16,755,455	96,808,072	29,299,307	128,510,538
12 Flour mills ¹	70	2,381	5,785,533	108,658,928	12,693,218	122,014,467
13 Fruit and vegetable preparations...	210	9,127	15,243,826	56,344,477	37,535,300	95,224,833
14 Sheet metal products.....	138	9,682	23,836,945	50,649,395	42,281,967	94,123,795
15 Castings, iron.....	112	12,173	31,681,711	38,038,298	51,430,026	91,627,925
16 Bread and other bakery products...	948	14,339	26,775,295	42,692,839	42,613,751	88,200,341
17 Machinery, industrial ¹	164	10,613	26,702,151	27,446,751	58,717,498	87,033,316
18 Furniture.....	456	13,769	28,690,621	35,342,157	45,996,970	82,213,350

¹ Not comparable with previous years.

5.—Statistics of the Leading Industries of the Province of Ontario, 1949—concluded

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
19 Printing and publishing.....	294	11,768	29,477,753	24,790,456	54,243,382	79,774,517
20 Electrical apparatus and supplies, n.e.s. ¹	96	8,132	19,080,047	35,075,440	41,108,887	77,009,875
21 Printing and bookbinding.....	654	11,499	25,051,194	26,063,945	43,032,460	69,625,078
22 Refrigerators, vacuum cleaners and appliances ¹	64	5,694	13,695,491	33,362,999	35,540,569	69,411,316
23 Clothing, men's factory.....	149	10,952	20,335,956	37,644,056	31,226,360	69,078,802
24 Feeds, stock and poultry, prepared	222	2,304	4,884,581	55,338,843	12,128,330	68,159,558
25 Brass and copper products.....	92	5,471	14,129,326	41,701,658	24,701,468	67,314,435
26 Boxes and bags, paper.....	96	7,091	15,151,769	39,824,610	26,490,237	66,825,350
27 Machinery, store, office and house- hold ¹	38	5,805	14,762,227	31,418,163	32,751,031	64,552,871
28 Cotton yarn and cloth.....	30	7,673	15,422,702	36,054,085	26,560,930	63,549,360
29 Miscellaneous paper goods ¹	109	5,867	13,111,823	34,609,438	28,199,963	63,459,884
30 Sawmills.....	1,511	8,971	14,147,420	32,887,587	29,201,468	62,739,000
31 Coke and gas products.....	15	3,021	7,982,553	35,372,028	21,184,168	59,943,579
32 Railway rolling-stock.....	15	6,242	16,674,725	32,129,470	26,143,271	59,225,297
33 Confectionery.....	82	5,536	9,545,605	29,176,626	27,184,523	56,913,248
34 Breweries.....	22	3,097	8,657,929	14,698,658	41,318,735	56,786,328
35 Soaps, washing compounds and cleaning preparations.....	68	2,991	8,038,697	28,569,317	26,566,404	56,006,711
36 Tobacco processing and packing.....	10	1,089	2,055,182	50,926,274	3,791,984	54,847,380
37 Hardware, tools and cutlery.....	201	8,959	20,940,113	17,400,911	36,314,117	54,779,808
38 Miscellaneous chemical products, n.e.s. ¹	106	3,719	9,338,339	27,451,840	21,244,840	53,560,490
39 Miscellaneous foods.....	117	3,067	6,207,359	36,192,323	16,848,428	53,352,469
40 Clothing, women's factory ¹	286	7,977	16,456,462	26,363,621	25,477,949	51,978,017
Totals, Leading Industries...	7,428	364,810	888,923,808	2,456,813,850	1,855,943,791	4,412,762,213
Totals, All Industries.....	12,951	557,190	1,305,544,434	3,256,454,918	2,708,554,013	6,103,804,834
Percentage of leading industries to all industries.....	57.4	65.5	68.1	75.4	68.5	72.3

¹ Not comparable with previous years.

Subsection 4.—The Manufactures of the Prairie Provinces

The leading industries of the Prairie Provinces are those based on agricultural resources—grain-growing, cattle-raising and dairying areas. Next in importance, generally, are industries providing for the more necessary needs of the resident population, such as the baking of bread, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area. The greatly increased production of crude petroleum in Alberta as well as the widespread use of motor-vehicles and power machinery on farms in the three provinces has given rise to the establishment and rapid development of petroleum refining. Manitoba, as the early commercial centre of the prairies, has had a greater industrial development than either of the other Provinces. Its natural resources of accessible water power, forests and, more recently, minerals, have created considerable diversification of industrial production.

Considering the Prairie Provinces as an economic unit, slaughtering and meat packing had the largest gross value of production in 1949, amounting to \$221,889,019, followed by flour mills with \$94,885,289, petroleum products \$90,502,929, butter and cheese \$84,669,894 and railway rolling-stock \$43,935,978. These five industries accounted for about 50 p.c. of the total production of the Prairie Provinces. Other leading industries, in order of gross value of production, were: bread and other bakery

products, breweries, printing and publishing, planing mills, sawmills, men's factory clothing, prepared stock and poultry feeds, women's factory clothing, malt and malt products, miscellaneous foods, sugar refining, furniture, printing and book-binding, pulp and paper, etc.

6.—Statistics of the Leading Industries of the Prairie Provinces, 1949

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
MANITOBA						
	No.	No.	\$	\$	\$	\$
1 Slaughtering and meat packing...	13	2,962	7,913,241	87,879,293	15,210,108	103,572,515
2 Railway rolling-stock.....	4	5,808	13,082,863	17,967,207	14,830,314	33,310,209
3 Butter and cheese.....	84	1,740	3,315,722	19,695,179	6,017,281	26,108,071
4 Flour mills ¹	12	555	1,051,594	20,466,586	1,507,387	22,107,869
5 Clothing, men's factory.....	39	2,486	3,541,078	8,999,707	6,033,509	15,090,473
6 Clothing, women's factory ¹	32	1,928	3,798,051	8,192,159	6,043,794	14,274,612
7 Printing and publishing.....	79	1,649	3,540,116	2,948,489	7,677,439	10,734,768
8 Bread and other bakery products.	124	1,657	2,943,789	5,023,869	5,086,388	10,448,075
9 Pulp and paper ²	72	478	1,341,085	2,899,238	6,621,856	10,346,220
10 Miscellaneous foods, n.e.s.....	20	433	779,639	7,939,953	1,922,133	9,908,800
11 Furniture.....	83	1,340	2,640,218	4,991,312	4,481,717	9,562,263
12 Malt and malt products.....	3	220	634,602	6,758,735	2,043,333	9,127,122
13 Petroleum products.....	3	248	497,335	6,759,563	1,745,373	8,731,894
14 Printing and bookbinding.....	78	1,523	2,998,607	2,813,224	5,171,657	8,051,823
15 Breweries.....	6	606	1,497,861	1,835,122	5,916,495	7,924,037
16 Feeds, stock and poultry, prepared	28	356	812,050	5,557,908	1,053,804	6,882,729
17 Fur goods.....	62	833	1,720,389	4,071,700	2,570,402	6,661,398
18 Boxes and bags, paper.....	8	554	1,174,824	4,106,807	2,426,125	6,581,565
19 Sheet metal products.....	19	784	1,718,076	3,479,138	2,826,842	6,385,930
20 Aerated waters.....	21	446	830,092	2,271,170	3,719,548	6,125,743
21 Primary iron and steel.....	4	868	2,015,406	1,784,218	3,232,499	5,524,915
22 Bags, cotton and jute.....	4	189	406,184	4,844,632	562,787	5,425,187
23 All other leading industries ³	6	1,182	2,804,376	18,910,513	10,436,766	29,963,666
Totals, Leading Industries...	734	28,845	61,057,198	250,195,722	117,137,557	372,649,884
Totals, All Industries.....	1,520	41,956	86,088,380	299,101,498	167,335,495	474,681,912
SASKATCHEWAN						
1 Flour mills ¹	21	680	1,648,004	33,650,360	6,460,716	40,446,109
2 Petroleum products.....	7	552	1,514,829	30,632,381	2,284,070	34,258,225
3 Slaughtering and meat packing...	10	1,291	3,220,137	26,086,084	5,432,984	31,765,794
4 Butter and cheese.....	66	1,435	2,632,013	22,213,728	5,265,457	27,825,533
5 Breweries.....	5	396	962,761	1,841,625	6,010,746	7,977,459
6 Bread and other bakery products.	86	962	1,680,940	3,733,585	3,100,668	7,026,676
7 Printing and publishing.....	109	1,106	2,327,013	1,348,006	3,739,615	5,174,891
8 Sawmills.....	337	878	898,437	1,321,884	2,169,162	3,562,128
9 Aerated waters.....	21	288	535,657	1,225,313	1,462,984	2,796,451
10 Feeds, stock and poultry, prepared	15	92	198,477	2,262,468	329,580	2,618,840
11 Sash, door and planing mills.....	26	352	718,473	1,262,227	1,311,214	2,612,161
Totals, Leading Industries⁴...	703	8,032	16,331,741	125,577,661	37,567,196	166,064,267
Totals, All Industries.....	962	10,841	22,273,942	164,349,341	47,356,949	215,742,708
ALBERTA						
1 Slaughtering and meat packing...	12	2,927	7,370,968	72,143,955	14,017,190	86,550,710
2 Petroleum products.....	7	893	2,500,027	39,844,426	6,480,193	47,512,810
3 Flour mills ¹	18	760	1,676,775	27,564,493	4,581,324	32,331,311
4 Butter and cheese.....	107	1,751	3,266,302	24,495,440	5,896,400	30,736,290
5 Sash, door and planing mills.....	75	1,414	2,850,731	8,707,192	4,891,508	13,749,733

For footnotes, see end of table, p. 652.

6.—Statistics of the Leading Industries of the Prairie Provinces, 1949—concluded

Industry	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
ALBERTA—concluded						
	No.	No.	\$	\$	\$	\$
6 Sawmills	601	2,995	3,729,615	5,911,852	7,215,037	13,500,571
7 Breweries	5	635	1,695,400	3,129,463	8,265,175	11,510,760
8 Bread and other bakery products	121	1,386	2,703,953	5,693,157	5,112,801	10,970,147
9 Railway rolling-stock	3	1,931	4,894,724	5,554,278	4,897,577	10,625,769
10 Feeds, stock and poultry, prepared	41	375	745,951	6,431,334	1,335,616	7,845,301
11 Printing and publishing	83	1,166	2,682,673	1,663,587	5,748,640	7,476,689
12 Miscellaneous wood products, n.e.s.	13	222	588,469	4,214,654	1,120,088	5,381,250
13 Clothing, men's factory	7	671	920,026	2,589,212	2,200,412	4,799,177
14 Aerated waters	20	292	560,885	1,455,903	1,962,652	3,502,643
15 Fruit and vegetable preparations	8	306	504,135	1,566,372	1,625,365	3,239,641
16 Printing and bookbinding	66	655	1,437,771	881,513	2,228,789	3,138,062
17 Machine shops	44	629	1,332,412	1,003,726	1,917,210	2,971,352
18 Miscellaneous foods	17	187	296,070	1,783,919	1,081,644	2,899,216
19 Furniture	48	481	903,057	1,548,205	1,316,188	2,893,730
20 Sheet metal products	9	254	481,451	1,314,665	1,260,609	2,586,838
21 Cement products	23	285	668,040	1,100,894	1,256,722	2,394,503
22 Feed mills ¹	37	68	96,498	2,045,296	293,242	2,359,373
23 Biscuits	3	188	337,221	1,056,930	1,141,218	2,207,063
24 Castings, iron	7	342	793,304	536,283	1,349,948	1,912,156
25 Machinery, industrial ¹	7	346	820,792	562,238	1,261,771	1,852,905
26 Clay products from domestic clay	11	438	891,075	42,132	1,517,308	1,603,199
27 Bags, cotton and jute	3	52	74,640	1,223,295	160,086	1,387,240
28 Agricultural implements	10	206	439,497	428,813	934,216	1,383,370
29 Boxes and baskets, wood	7	222	464,451	686,302	621,003	1,323,742
30 All other leading industries ²	15	1,933	4,575,908	19,523,345	14,663,262	35,988,154
Totals, Leading Industries	1,428	24,010	50,302,821	244,702,874	106,353,194	356,633,705
Totals, All Industries	1,685	26,425	55,115,554	251,364,059	114,681,296	371,995,120

¹ Not comparable with previous years.

² Publication of these figures authorized by the two firms concerned.

³ Includes bridge-building and structural steel, non-ferrous metal smelting and refining, biscuits, and sugar refineries.

⁴ Other leading industries for which figures cannot be given because there are fewer than three establishments are: non-ferrous metal smelting and refining, and vegetable oil mills.

⁵ Includes malt and malt products; sugar refineries; cheese, processed; condensed milk; boxes and bags, paper; bridge-building and structural steel; cement; glass and glass products; fertilizers; and vegetable oils.

Subsection 5.—The Manufactures of British Columbia

British Columbia, with a gross value of production of \$959,008,088 in 1949, was again the third most important manufacturing province in Canada. About 22 p.c. of that amount was contributed by the sawmilling industry, followed by pulp and paper, fish processing and meat packing. Shipbuilding, which occupied first place during the war years, was in fifteenth place in 1949; at the height of its productive effort in 1943 it employed 31,238 persons who were paid \$64,939,484 in salaries and wages, while the value of production reached the unprecedented figure of \$155,536,396. The shipbuilding industry was still in 1949 the seventh largest employer of labour in the Province and paid out the fourth highest amount in salaries and wages.

Emphasizing the importance of the forests in the industrial life of the Province, the sawmilling industry ranked first with a gross value of production of \$209,607,511 and the pulp and paper industry second with \$69,925,185. Third in importance

was fish curing and packing, based principally on the estuarial salmon fisheries. British Columbia accounted for 49 p.c. of the total production of this industry in Canada. Other important industries include: slaughtering and meat packing, petroleum products, fertilizers, planing mills, veneers and plywoods, miscellaneous food products, fruit and vegetable preparations, butter and cheese, etc.

7.—Statistics of the Leading Industries of the Province of British Columbia, 1949

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Sawmills.....	1,290	24,027	56,527,596	103,345,925	104,089,164	209,607,511
2 Pulp and paper.....	9	4,586	14,374,571	23,460,417	42,881,670	69,925,185
3 Fish processing.....	68	3,888	8,285,182	32,600,417	22,190,548	55,553,356
4 Slaughtering and meat packing...	11	1,332	3,533,092	41,655,627	7,198,368	49,120,931
5 Petroleum products.....	5	682	2,017,831	23,306,034	10,067,554	34,409,015
6 Fertilizers.....	5	1,368	4,027,647	8,966,988	18,964,481	28,060,751
7 Sash, door and planing mills.....	138	2,488	5,682,083	16,467,344	9,745,606	26,522,103
8 Veneers and plywoods.....	11	2,769	6,341,935	10,702,470	14,338,223	25,239,202
9 Miscellaneous food industries.....	42	694	1,126,600	18,686,960	4,295,896	23,057,601
10 Fruit and vegetable preparations..	77	2,224	3,683,224	14,272,893	8,082,474	22,622,366
11 Butter and cheese.....	32	1,734	3,751,152	13,840,869	5,929,247	20,267,063
12 Bread and other bakery products.	253	2,612	5,553,045	9,232,384	8,567,356	18,360,066
13 Printing and publishing.....	77	2,633	6,945,490	4,258,553	11,629,254	16,014,950
14 Feeds, stock and poultry, prepared	34	759	1,529,046	11,714,324	3,073,763	15,028,791
15 Shipbuilding.....	27	2,604	7,289,235	3,635,365	10,395,510	14,281,661
16 Breweries.....	11	718	1,850,119	2,459,639	9,155,439	11,807,728
17 Sheet metal products.....	30	874	2,249,525	7,429,693	4,114,611	11,640,408
18 Furniture.....	174	2,048	3,992,502	5,606,021	5,723,833	11,453,084
19 Machinery, industrial.....	39	1,678	4,431,994	3,274,511	7,942,786	11,395,478
Totals, Leading Industries¹.....	2,333	59,718	143,191,869	354,916,434	308,385,783	674,367,250
Totals, All Industries.....	3,493	82,934	196,403,722	531,112,329	409,665,348	959,008,088

¹ Other leading industries for which statistics cannot be given because there are fewer than three establishments in each industry are: non-ferrous metal smelting and refining, and sugar refining.

Section 2.—Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in the east, is intimately connected with their manufacturing industries, which provide employment for a large proportion of the labour forces. In the west the cities are more largely distributing centres, though manufactures are increasing rapidly there also.

Table 8 indicates the extent to which the manufacturing industries of Canada are concentrated in urban centres and shows by provinces the proportion of the gross manufacturing production contributed by cities and towns having a gross production of over \$1,000,000 each. In the more highly industrialized Provinces of Ontario and Quebec such cities and towns in 1949 accounted for 93.8 p.c. and 91.7 p.c., respectively, of the total manufactures for those Provinces, while in the Atlantic Provinces and British Columbia, where sawmilling, fish packing, and dairying are leading industries, the proportions were 68.9 p.c. and 58.6 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

8.—Urban Centres, each with a Gross Manufacturing Production of over \$1,000,000, Number of Establishments and Production in these centres as a Percentage of the Provincial Total, by Provinces, 1949.

NOTE.—Statistics published in this table are in some cases higher than the figures published in Table 11, since the table below includes statistics of towns with less than three establishments and production of over \$1,000,000 each. It was not possible to publish this information in Table 11 without disclosing the operations of individual establishments.

Province or Territory	Urban Centres with a Gross Production of over \$1,000,000 each	Establishments Reporting in Urban Centres Producing over \$1,000,000 each	Total Production in Urban Centres Producing over \$1,000,000 each	Total Production in each Province	Production in Urban Centres as a Percentage of Total Production in each Province
	No.	No.	\$	\$	p. c.
Newfoundland.....	2	107	43,156,816	67,264,282	64.2
Prince Edward Island.....	2	56	11,039,520	18,123,200	60.9
Nova Scotia.....	20	457	168,636,370	247,592,389	68.1
New Brunswick.....	14	313	166,294,063	231,506,191	71.8
Quebec.....	128	7,091	3,475,779,196	3,788,497,123	91.7
Ontario.....	165	9,311	5,724,561,190	6,103,804,834	93.8
Manitoba.....	11	1,062	430,702,432	474,681,912	90.7
Saskatchewan.....	10	396	171,397,892	215,742,708	79.4
Alberta.....	14	744	288,351,166	371,995,120	77.5
British Columbia.....	25	2,110	562,244,781	959,008,088	58.6
Yukon and Northwest Territories.....	—	—	—	1,377,453	—
Canada.....	391	21,647	11,042,163,426	12,479,593,300	88.5

9.—Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities, 1939 and 1944-49

City and Year	Establishments	Employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products ¹
	No.	No.	\$	\$	\$	\$
Montreal.....1939	2,501	105,315	114,602,118	7,667,848	254,188,246	483,246,583
1944	3,109	185,708	308,396,358	15,855,932	650,618,563	1,215,988,014
1945	3,404	181,679	304,247,761	15,608,977	600,919,272	1,144,175,108
1946	3,785	173,507	291,381,617	14,740,538	602,667,823	1,147,945,303
1947	3,950	177,744	325,114,158	17,075,063	682,056,090	1,298,019,266
1948	3,887	180,098	368,191,470	20,269,002	841,048,938	1,550,246,090
1949	4,136	184,779	399,943,526	16,487,474	847,444,669	1,596,713,694
Toronto.....1939	2,885	98,702	122,553,435	7,306,351	240,532,281	482,532,331
1944	3,344	154,538	260,776,613	11,743,947	513,429,109	1,020,345,353
1945	3,482	146,335	244,055,112	11,765,313	496,204,721	961,736,716
1946	3,632	145,556	247,298,288	12,238,707	549,256,912	1,036,939,790
1947	3,705	151,137	289,363,797	14,134,874	648,648,084	1,231,936,820
1948	3,683	154,197	335,142,822	16,500,672	804,970,396	1,475,761,819
1949	4,005	158,562	368,510,524	17,003,151	837,148,440	1,579,186,450
Hamilton.....1939	461	31,512	39,563,423	5,267,577	70,829,034	152,746,340
1944	480	53,500	94,982,915	12,095,294	171,117,467	363,033,672
1945	482	50,520	89,639,262	11,611,077	166,349,884	351,676,308
1946	501	45,951	80,959,432	10,434,888	150,977,835	308,033,098
1947	512	50,567	101,424,109	14,456,482	205,430,175	411,817,530
1948	526	53,370	124,016,143	19,583,629	259,800,537	519,132,345
1949	546	54,665	137,641,333	17,728,214	285,180,403	563,982,920
Windsor.....1939	222	17,729	25,938,890	1,673,417	63,907,106	122,474,320
1944	231	35,912	80,667,573	4,890,272	232,102,240	387,603,874
1945	241	28,826	63,515,050	4,053,119	167,675,110	280,743,622
1946	256	30,889	60,315,436	3,748,979	138,788,813	244,925,148
1947	273	32,154	74,748,834	4,553,594	204,383,024	367,122,739
1948	271	32,729	85,354,165	5,100,497	231,706,777	413,749,890
1949	283	34,591	94,304,627	5,373,123	271,392,923	494,162,203

For footnote see end of table.

9.—Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities, 1939 and 1944-49—concluded

City and Year	Estab-lish-ments	Em-employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products ¹
	No.	No.	\$	\$	\$	\$
Vancouver.....1939	829	17,957	22,382,192	1,397,159	56,565,511	101,267,243
1944	933	43,473	79,141,407	3,568,106	142,416,371	289,390,718
1945	992	37,599	66,144,015	3,443,141	137,118,244	265,034,773
1946	1,071	31,408	55,960,984	3,075,453	138,045,068	270,165,166
1947	1,127	33,119	65,363,332	3,589,022	174,822,180	313,964,785
1948	1,136	33,815	75,300,519	4,299,879	211,726,521	360,749,092
1949	1,225	33,536	78,793,345	4,392,716	204,642,985	358,620,526
Winnipeg.....1939	648	17,571	20,717,273	1,491,823	44,873,043	81,024,272
1944	686	25,870	38,824,299	2,445,806	119,917,745	198,169,626
1945	716	26,206	40,115,513	2,530,202	117,453,819	197,523,922
1946	756	26,730	42,354,650	2,625,075	121,531,306	206,381,007
1947	779	27,651	47,728,392	2,827,768	130,721,062	228,028,346
1948	765	27,906	54,379,965	3,133,001	157,379,778	264,022,796
1949	860	28,687	58,604,162	3,166,077	143,827,270	255,006,806

¹ Net value is derived from gross value by deducting cost of materials, fuel, and electricity.

10.—Principal Statistics of the Manufacturing Industries in the Six Leading Metropolitan Areas, 1949

Metropolitan Area	Estab-lish-ments	Em-employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Greater Montreal ¹	4,554	219,236	481,568,343	33,961,207	1,125,411,070	2,079,892,373
Greater Toronto.....	4,335	182,714	429,073,706	20,858,127	971,977,082	1,849,787,979
Greater Hamilton.....	565	54,894	138,023,228	17,780,194	286,450,275	566,267,994
Greater Windsor.....	297	35,037	95,104,680	5,422,001	273,401,313	497,733,778
Greater Vancouver.....	1,450	42,792	101,445,996	6,195,962	266,596,418	469,019,227
Greater Winnipeg.....	995	34,510	71,733,315	4,455,903	242,436,120	382,953,842

¹ Exclusive of the non-ferrous smelting and refining industry.

11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1949

NOTE.—Statistics for urban centres with three or more establishments cannot be published when one establishment has 75 p.c. or two establishments 90 p.c. of the total production.

Province and Municipality	Estab-lish-ments	Em-employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Newfoundland—						
St. John's.....	105	2,224	3,575,183	344,511	8,428,284	15,783,998
Prince Edward Island—						
Charlottetown.....	39	608	1,063,340	112,707	5,528,009	7,740,143
Summerside.....	17	269	340,568	33,498	2,473,223	3,299,377
Nova Scotia—						
Amherst.....	23	918	1,595,739	200,965	3,239,360	6,344,651
Berwick.....	6	144	221,547	50,972	574,277	1,108,333
Bridgewater.....	21	207	311,952	26,485	736,759	1,488,222
Dartmouth.....	18	263	470,268	101,001	1,062,527	2,131,494
Digby.....	10	244	373,480	16,769	821,839	1,451,874
Glace Bay.....	16	203	274,709	27,530	552,211	1,248,856
Halifax.....	142	6,185	11,864,472	709,633	24,061,037	46,745,139
Hantsport.....	6	277	498,287	50,784	850,234	1,840,691
Lockeport.....	4	243	346,007	36,157	1,122,706	1,827,317
Lunenburg.....	16	586	1,047,238	72,500	2,812,998	4,674,239
Middleton.....	10	175	250,326	36,412	950,642	1,550,254

11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1949—continued

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Nova Scotia—concluded						
New Glasgow.....	24	924	1,747,027	292,824	2,138,721	5,666,534
North Sydney.....	13	311	457,583	40,694	965,830	2,809,102
Pictou.....	7	210	341,394	20,907	740,831	1,405,559
Shelburne.....	17	222	347,614	21,254	736,409	1,357,583
Sydney.....	39	5,996	15,607,185	3,581,924	26,403,138	53,409,044
Truro.....	40	1,356	1,974,415	206,831	4,695,827	8,259,544
Windsor.....	12	364	513,808	42,065	2,174,584	3,100,182
Yarmouth.....	27	871	1,368,876	140,303	3,445,803	6,288,097
New Brunswick—						
Campbellton.....	15	333	565,969	47,151	929,086	1,761,545
Fredericton.....	41	844	1,363,361	113,710	3,312,081	5,727,392
Moncton.....	50	3,683	7,601,900	472,270	17,774,762	29,927,582
Newcastle.....	12	178	270,961	49,515	1,322,156	1,667,187
Saint John.....	108	3,475	6,629,261	1,011,789	39,105,482	55,367,794
St. Stephen.....	15	548	864,407	60,854	2,212,900	3,881,828
Sussex.....	12	279	456,184	46,247	1,584,143	2,943,196
Woodstock.....	16	146	208,139	21,682	745,345	1,150,639
Quebec—						
Acton Vale.....	15	862	1,297,691	59,116	2,204,423	4,043,997
Asbestos.....	14	367	866,006	140,309	1,599,061	3,408,599
Beauharnois.....	15	1,654	4,182,032	1,256,646	7,088,254	18,481,208
Bedford.....	12	919	1,587,878	43,690	701,640	4,811,814
Beebe Plain.....	10	287	442,059	20,998	917,291	1,679,394
Berthier.....	17	723	1,065,226	133,950	2,356,869	4,596,237
Cabano.....	9	265	353,057	9,468	880,028	1,551,299
Cap de la Madeleine.....	34	2,427	4,785,262	1,029,894	15,265,057	28,861,045
Chamby Canton.....	10	444	893,592	77,814	1,435,204	2,780,449
Chicoutimi.....	29	438	709,251	58,424	1,688,164	3,036,292
Coaticook.....	22	1,089	1,799,024	108,551	4,405,417	7,575,531
Contrecoeur.....	9	302	373,289	9,932	876,131	1,447,601
Cookshire.....	9	189	287,481	24,205	618,085	1,680,274
Drummondville.....	44	8,272	16,599,463	1,630,908	17,473,201	56,100,047
Farnham.....	20	1,008	1,735,726	152,458	4,315,096	8,641,573
Granby.....	70	4,864	9,156,205	550,338	20,617,792	40,581,662
Grand Mère.....	28	2,278	4,421,475	1,282,680	10,276,438	21,999,634
Grenville.....	4	137	253,294	32,627	937,312	1,275,608
Henryville.....	7	99	126,821	38,033	815,454	1,044,152
Hull.....	64	3,082	6,615,878	1,659,509	21,825,578	35,609,860
Huntingdon.....	14	686	1,575,287	116,887	4,976,496	8,136,524
Iberville.....	20	354	609,726	27,824	1,306,799	2,449,609
Joliette.....	57	2,098	3,483,672	433,059	7,365,878	14,493,896
Jonquière.....	19	503	1,153,116	242,750	3,009,619	4,902,108
Lachine.....	64	7,105	17,961,748	936,804	22,007,441	58,636,242
Lachute.....	12	287	543,147	124,847	1,393,140	2,135,725
La Pêrade.....	13	267	380,079	95,048	1,759,629	2,557,753
Laprairie.....	20	383	675,043	169,571	531,485	1,928,945
La Salle.....	36	3,501	8,284,662	4,041,275	34,486,888	66,628,048
L'Assomption.....	17	497	834,126	25,834	2,419,753	3,823,861
Lennoxville.....	13	418	842,731	140,003	1,748,808	3,300,969
L'Épiphanie.....	15	299	471,676	31,133	949,846	1,799,638
Lévis.....	43	673	931,525	71,414	2,301,180	4,467,101
Longueuil.....	38	2,098	4,116,075	265,364	8,403,123	16,094,316
Loretteville.....	25	497	486,708	12,738	1,198,207	2,211,995
Louiseville.....	18	1,336	2,232,502	244,869	4,400,710	10,153,050
Marieville.....	19	570	815,692	47,084	2,484,930	3,998,474
Matane.....	20	326	643,866	20,875	1,302,277	2,628,596
Mégantic (Lac).....	23	461	741,655	64,743	949,931	2,338,311
Mont Laurier.....	15	264	385,462	19,197	1,084,995	1,778,699
Montmagny.....	40	1,522	2,392,809	137,273	4,575,891	9,770,918
Montreal.....	4,136	184,779	399,943,526	16,487,474	847,444,669	1,596,713,694
Montreal East.....	23	4,617	11,650,258	9,625,317	195,820,050	247,604,548
Nicolet.....	17	388	587,236	24,124	774,565	2,281,623
Outremont.....	24	1,487	3,388,521	112,313	13,545,029	23,610,561
Plessisville.....	20	810	1,018,619	73,479	2,257,142	4,375,407
Point-aux-Trembles.....	12	619	1,176,121	52,772	1,395,346	3,417,541
Portneuf Station.....	12	395	763,401	271,545	2,735,183	5,056,434
Princeville.....	10	331	540,870	55,689	3,788,641	4,695,749
Quebec.....	427	15,130	26,412,265	3,350,026	67,141,900	121,416,191

11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1949—continued

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Quebec—concluded						
Richmond.....	14	596	1,040,641	30,923	1,387,437	3,407,815
Rimouski.....	32	580	1,179,992	41,108	2,119,953	4,272,742
Rivière-du-Loup.....	23	431	805,204	68,943	922,625	1,998,474
Rock Island.....	17	668	1,203,565	55,925	1,070,034	4,088,270
St. Casimir.....	15	115	127,303	11,963	782,435	1,040,541
St. Césaire.....	28	361	441,194	37,481	1,342,815	2,077,786
St. Croix.....	10	203	299,644	11,570	681,062	1,192,965
St. Félixien.....	16	183	263,657	20,838	1,561,137	2,101,759
St. Félix-de-Valois.....	12	72	92,070	8,490	827,047	1,020,347
St. Gabriel-de-Brandon.....	22	294	352,992	13,278	650,701	1,267,657
St. Georges (Beauce Co.).....	13	428	671,449	48,483	816,391	1,911,148
St. Georges West.....	8	234	303,358	34,051	702,397	1,342,239
St. Germain de Grantham.....	7	34	45,586	23,392	906,767	1,081,317
St. Hyacinthe.....	87	4,937	8,408,460	486,480	20,810,668	36,763,993
St. Jacques.....	9	175	228,024	8,711	1,604,952	1,921,503
St. Jean.....	63	5,283	10,958,675	809,807	17,377,539	36,194,463
St. Jérôme (Terrebonne Co.).....	53	3,802	6,281,276	455,306	9,407,622	21,182,264
St. Lambert.....	16	764	1,264,320	94,772	2,552,765	5,283,293
St. Laurent.....	25	3,199	8,127,927	334,527	12,438,493	26,632,199
St. Marie.....	19	581	831,505	78,368	1,922,225	3,685,472
St. Michel (Montreal Is.).....	25	275	483,856	27,895	831,879	1,740,502
St. Pie.....	15	212	316,812	27,783	1,047,484	1,592,229
St. Pierre (Montreal Is.).....	14	2,285	5,684,931	920,958	5,081,914	13,596,145
St. Rémi.....	11	233	373,027	40,632	2,661,865	3,139,955
St. Thérèse de Blainville.....	30	971	1,719,486	74,593	2,372,573	5,101,004
Shawinigan Falls.....	46	4,853	12,918,001	6,277,007	33,066,562	73,040,547
Shawville.....	9	98	140,742	14,707	939,707	1,227,191
Sherbrooke.....	103	7,976	15,224,410	1,069,186	30,765,468	65,017,661
Sorel.....	32	1,625	2,903,410	215,077	2,857,100	6,771,867
Sutton.....	11	184	276,644	27,960	831,764	1,233,954
Terrebonne.....	16	473	942,375	43,337	1,572,312	2,990,676
Thetford Mines.....	27	366	582,566	69,638	713,906	1,888,110
Three Rivers.....	85	6,969	16,283,070	5,785,029	36,088,761	84,353,551
Thurso.....	8	416	825,555	13,751	1,590,024	3,158,895
Trois Pistoles.....	18	229	389,208	17,475	1,816,618	2,746,247
Valleyfield.....	43	4,117	8,407,221	636,281	15,513,278	32,992,001
Verchères.....	15	117	155,811	62,891	959,515	1,160,535
Verdun.....	61	1,259	2,283,666	70,975	4,775,240	8,986,910
Victoriaville.....	49	2,407	4,007,075	135,221	7,717,527	14,560,965
Warwick.....	15	411	665,271	61,862	1,919,658	3,589,759
Waterloo.....	18	758	1,407,664	64,763	1,641,009	4,339,105
Westmount.....	15	1,939	4,509,080	261,841	5,541,427	14,397,017
Windor Mills.....	12	1,094	2,780,421	760,639	6,161,292	11,682,078
Ontario—						
Acton.....	19	905	1,673,006	180,882	5,834,895	9,248,468
Almonte.....	13	361	735,729	104,631	2,645,790	3,751,008
Amherstburg.....	12	883	2,216,560	1,516,797	3,378,177	12,527,399
Auriprior.....	18	603	1,287,642	111,702	2,143,873	4,219,938
Aurora.....	14	625	1,287,913	71,406	4,855,663	6,860,943
Barrie.....	24	891	1,814,098	140,205	7,088,116	11,710,845
Beamsville.....	14	174	262,097	12,787	584,689	1,073,559
Belleville.....	52	3,030	6,892,471	1,201,676	8,233,471	23,643,116
Bloomfield.....	10	129	179,552	21,171	871,381	1,194,832
Bowmanville.....	18	1,013	2,380,207	182,907	4,043,578	8,758,775
Brampton.....	31	1,136	2,244,467	104,618	3,978,364	8,029,517
Brantford.....	153	13,650	31,822,897	1,673,327	66,909,382	129,421,325
Brockville.....	41	1,726	3,835,175	283,560	21,530,782	27,446,597
Burlington.....	14	588	1,269,180	84,788	3,515,613	6,571,354
Caledonia.....	10	351	710,646	214,276	2,954,450	5,076,528
Campbellford.....	21	398	750,575	51,173	2,109,953	4,057,917
Carleton Place.....	10	859	1,696,031	114,717	2,495,108	5,295,091
Chatham.....	71	3,572	8,481,186	917,631	42,355,739	62,387,458
Chesley.....	12	415	682,984	23,753	1,397,794	2,557,408
Clinton.....	11	180	267,875	26,562	812,072	1,424,867
Cobourg.....	33	1,071	2,031,344	176,297	3,716,097	7,730,100
Collingwood.....	18	1,089	2,238,457	105,080	2,669,893	5,836,564
Cornwall.....	50	6,502	15,065,273	2,823,800	21,118,242	52,612,076
Dresden.....	12	225	358,134	49,906	791,629	1,519,341
Dundas.....	33	1,466	3,132,365	181,968	2,595,411	8,303,145
Dunnville.....	22	924	1,696,837	97,969	4,445,881	7,045,926

11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1949—continued

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Ontario—continued						
Durham.....	14	263	511,868	36,297	927,726	1,737,096
Eastview.....	18	313	679,468	57,351	2,666,411	4,055,076
Elmira.....	21	790	1,580,335	140,323	3,790,904	7,915,575
Elora.....	7	385	751,939	22,207	864,973	2,284,703
Essex.....	15	336	592,294	73,119	1,574,426	2,546,777
Exeter.....	8	121	188,018	23,822	662,189	1,032,550
Forest.....	13	220	308,796	36,395	1,075,809	1,774,704
Fort Erie.....	16	809	2,312,346	48,920	4,771,888	10,542,617
Fort William.....	51	3,315	8,607,069	2,240,587	22,630,331	45,964,240
Galt.....	86	6,030	12,790,437	671,853	17,697,793	40,212,650
Gananoque.....	19	790	1,702,103	168,791	3,225,798	5,839,251
Georgetown.....	17	984	2,228,224	163,409	4,083,710	7,754,334
Goderich.....	17	507	1,024,094	224,355	7,873,954	10,990,438
Gravenhurst.....	9	334	618,457	20,223	1,021,021	2,254,473
Grimsby.....	18	597	1,032,995	62,288	1,828,441	4,037,526
Guelph.....	106	5,867	12,885,044	854,043	22,407,517	45,612,308
Hamilton.....	546	54,665	137,641,333	17,728,214	285,180,403	563,982,920
Hanover.....	25	1,123	2,073,203	87,994	2,977,585	5,711,385
Harriston.....	14	225	355,721	46,208	956,887	1,677,441
Hearst.....	8	166	407,978	9,973	1,184,416	1,759,002
Hespeler.....	20	2,144	4,116,626	407,971	6,272,992	13,945,422
Huntsville.....	17	515	964,589	65,835	4,222,462	6,044,522
Ingersoll.....	26	1,331	2,926,924	175,188	7,896,104	13,647,094
Jarvis.....	4	44	102,676	25,508	970,140	1,207,422
Kincardine.....	14	499	792,652	45,822	1,371,981	3,035,020
Kingston.....	65	5,556	12,240,266	1,117,253	21,944,949	49,993,267
Kitchener.....	197	14,821	31,922,441	1,531,470	75,502,759	141,680,659
Leamington.....	17	1,263	2,430,781	277,350	15,999,062	25,249,516
Leaside.....	51	7,873	19,334,136	956,625	40,701,833	83,732,170
Lindsay.....	38	999	1,629,592	136,071	4,138,275	7,022,625
Listowel.....	15	485	861,408	79,607	2,383,127	4,102,663
London.....	270	15,153	32,878,430	1,674,088	62,394,787	139,254,663
Long Branch.....	39	1,221	3,091,431	123,898	5,483,428	12,845,490
Lucknow.....	9	79	147,682	16,767	1,229,719	1,640,919
Meaford.....	18	445	767,659	40,852	1,141,846	2,493,395
Merrittton.....	14	2,018	5,428,883	804,709	11,096,539	21,212,363
Midland.....	22	1,166	2,275,391	84,327	5,126,188	7,894,171
Milton.....	11	566	1,204,646	291,567	2,181,376	5,271,720
Milverton.....	9	239	436,242	16,286	777,033	1,519,720
Mimico.....	31	582	1,378,934	105,097	1,858,900	4,572,105
Mount Forest.....	15	253	366,721	27,072	1,067,737	1,747,597
Napanee.....	15	393	731,299	87,830	1,755,509	3,508,555
New Hamburg.....	12	277	497,485	29,705	950,532	1,837,521
New Liskeard.....	14	519	1,005,798	37,537	1,462,573	3,386,234
Newmarket.....	18	1,039	2,184,292	115,245	4,780,047	9,800,414
New Toronto.....	39	6,407	17,390,400	1,529,938	55,453,349	99,605,454
Niagara Falls.....	76	6,163	15,648,428	4,567,127	27,388,858	71,047,846
North Bay.....	32	568	1,291,095	101,267	2,053,094	4,566,981
Norwich.....	9	109	167,115	32,699	1,097,506	1,577,433
Oakville.....	41	1,348	2,862,932	218,833	5,137,216	11,386,660
Orangeville.....	13	216	334,974	30,414	1,110,333	1,722,003
Orillia.....	49	2,053	3,883,513	268,625	5,306,005	12,547,810
Oshawa.....	55	9,997	26,711,432	1,227,592	85,293,640	157,756,382
Ottawa.....	268	10,641	22,705,162	1,690,399	38,027,218	82,450,493
Owen Sound.....	54	2,461	4,984,826	266,353	6,184,888	15,096,738
Palmerston.....	10	83	133,792	14,404	1,429,738	1,682,302
Paris.....	23	1,256	2,552,021	123,105	5,789,567	10,303,860
Pembroke.....	36	1,052	1,939,857	94,602	3,470,083	6,932,199
Penetanguishene.....	14	454	752,980	42,962	852,950	2,009,901
Perth.....	28	950	1,642,368	91,048	3,359,578	7,262,743
Peterborough.....	99	9,591	23,586,512	1,099,333	61,596,796	100,033,462
Petrolia.....	14	433	853,959	491,073	6,293,935	8,136,536
Pictou.....	16	186	244,792	19,692	773,319	1,254,660
Port Arthur.....	51	2,154	5,547,541	1,617,220	12,504,024	28,046,408
Port Dover.....	9	133	177,638	12,033	740,061	1,163,053
Port Elgin.....	9	225	365,973	15,634	596,288	1,055,921
Port Hope.....	25	1,132	2,755,107	319,888	3,348,041	9,263,946
Prescott.....	19	571	910,340	32,797	1,352,352	3,082,813
Prenton.....	38	2,790	5,737,165	211,210	8,279,246	18,550,324
Renfrew.....	27	1,057	2,076,583	160,089	3,618,755	6,786,698
Ridgetown.....	12	253	522,845	21,753	709,283	1,948,860
St. Catharines.....	104	9,899	25,216,677	1,218,198	39,765,144	85,699,808

11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1949—continued

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Ontario—concluded						
St. Marys.....	15	665	1,427,255	911,744	4,676,611	9,730,722
St. Thomas.....	44	2,117	4,354,257	253,307	7,636,983	15,047,837
Sarnia.....	46	7,153	18,874,114	9,332,026	90,804,548	145,303,109
Sault Ste. Marie.....	54	6,941	19,835,965	5,876,359	51,345,242	95,209,534
Seaforth.....	13	333	543,240	31,625	1,992,006	2,734,282
Simcoe.....	28	1,345	2,827,203	163,117	12,614,910	18,636,553
Sioux Lookout.....	8	90	185,857	14,814	942,206	1,239,080
Southampton.....	9	347	723,486	26,033	954,254	2,009,995
Stratford.....	65	3,774	8,037,384	370,082	13,566,725	25,305,230
Strathroy.....	20	539	895,653	41,931	2,263,319	3,876,045
Streetsville.....	12	273	601,606	113,518	3,483,282	4,757,780
Sudbury.....	45	1,006	2,193,489	153,605	6,119,701	8,672,824
Swansea.....	8	772	1,896,938	229,408	3,232,200	6,707,365
Tavistock.....	11	192	282,692	25,993	1,964,812	2,436,544
Tecumseh.....	5	279	429,271	35,276	978,150	2,032,393
Teeswater.....	7	43	70,808	12,864	834,865	1,002,118
Thorold.....	25	2,216	7,026,807	2,827,462	14,946,803	32,646,053
Tilbury.....	13	628	1,258,744	95,454	1,289,494	2,341,056
Tillsonburg.....	29	718	1,313,977	166,254	8,449,658	11,501,997
Timmins.....	31	602	1,142,981	75,896	1,944,909	3,951,580
Toronto.....	4,005	158,562	368,510,524	17,003,151	837,148,440	1,579,186,450
Trenton.....	24	1,512	2,697,611	395,082	8,319,681	15,398,018
Tweed.....	10	135	208,271	15,426	845,202	1,410,254
Walkerton.....	17	503	862,408	37,396	1,364,361	2,541,196
Wallaceburg.....	24	2,595	6,077,696	1,131,744	12,362,194	24,945,583
Wallaceburg.....	54	2,647	5,904,002	350,546	11,252,507	29,096,975
Watford.....	9	101	193,456	25,164	626,526	1,110,415
Welland.....	63	8,061	22,331,790	3,628,936	43,425,050	91,869,763
Wellington.....	8	139	205,455	34,158	798,948	1,268,461
West Lorne.....	8	177	343,470	19,008	813,735	1,651,809
Weston.....	45	2,439	5,674,783	336,331	8,072,844	20,012,374
Whitby.....	11	370	543,900	36,015	1,089,503	1,877,922
Winchester.....	7	65	102,233	36,392	1,130,809	1,372,125
Windsor.....	283	34,591	94,304,627	5,373,123	271,392,923	494,162,203
Wingham.....	17	418	780,454	47,731	1,877,544	3,109,239
Woodbridge.....	8	327	692,493	134,991	5,734,711	7,831,733
Woodstock.....	70	3,663	7,438,499	352,818	18,529,457	35,933,463
Manitoba—						
Brandon.....	41	814	1,597,082	161,062	8,846,994	11,726,053
Dauphin.....	12	102	186,518	25,559	779,765	1,168,058
Neepawa.....	8	112	214,514	80,593	620,471	1,126,783
Portage la Prairie.....	19	260	368,534	33,501	967,047	1,787,659
St. Boniface.....	86	4,225	10,230,625	839,433	91,461,862	114,975,791
Winnipeg.....	860	28,687	58,604,162	3,166,077	143,827,270	255,006,806
Saskatchewan—						
Kamsack.....	10	59	76,169	11,395	708,826	1,130,101
Melville.....	9	71	112,285	18,247	1,918,114	2,212,335
Moose Jaw.....	48	1,446	3,385,161	609,792	36,098,036	43,606,428
North Battleford.....	13	155	270,184	30,242	886,497	1,477,567
Prince Albert.....	32	898	1,919,436	160,669	9,852,946	14,990,347
Regina.....	137	2,960	6,655,021	1,395,791	34,922,066	50,334,303
Saskatoon.....	109	2,524	5,370,416	615,426	39,359,818	51,882,127
Swift Current.....	12	208	441,103	55,600	1,470,029	2,222,197
Weyburn.....	9	83	134,357	20,049	876,769	1,191,122
Yorkton.....	17	206	380,400	65,502	1,632,016	2,351,365
Alberta—						
Athabaska.....	20	166	229,200	25,940	1,129,560	1,600,569
Barrhead.....	11	103	160,010	16,276	1,115,265	1,382,902
Calgary.....	276	7,848	17,763,773	1,531,671	84,202,669	117,310,415
Camrose.....	11	68	147,193	11,053	836,133	1,108,200
Edmonton.....	237	8,544	18,958,562	864,171	80,588,620	117,123,100
Grande Prairie.....	19	281	461,753	53,918	1,537,726	2,846,244
Lethbridge.....	41	977	2,052,349	129,558	5,962,789	11,298,150
Medicine Hat.....	33	1,042	2,046,116	120,453	14,832,569	19,772,257
Red Deer.....	17	157	284,615	36,756	2,033,898	2,958,198
Wetaskiwin.....	10	72	129,954	13,411	1,180,875	1,420,186

11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1949—concluded

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
British Columbia—						
Armstrong.....	12	133	262,201	25,352	528,503	1,031,646
Chilliwack.....	28	225	398,281	47,312	1,101,845	1,887,067
Cranbrook.....	22	411	891,725	71,054	1,632,624	3,007,859
Duncan.....	24	223	487,147	43,132	896,372	1,797,715
Fernie.....	8	117	212,350	27,523	388,502	1,102,919
Kamloops.....	27	393	767,892	61,887	1,211,451	2,529,717
Kelowna.....	33	743	1,433,674	92,875	2,985,989	5,727,496
Merritt.....	9	167	377,277	17,444	548,633	1,116,672
Mission.....	23	463	872,002	67,316	2,639,252	4,429,412
Nanaimo.....	24	405	963,017	79,474	1,495,907	3,798,826
Nelson.....	34	572	1,100,802	92,460	2,337,873	4,697,251
New Westminster.....	111	5,324	12,687,861	763,571	39,326,011	66,469,183
North Vancouver.....	53	1,994	5,254,652	255,452	7,144,473	15,894,016
Oliver.....	9	153	289,892	19,390	566,165	1,195,299
Penticton.....	17	237	425,524	27,269	800,501	1,721,820
Port Alberni.....	23	1,755	4,872,190	202,563	8,409,589	22,148,842
Prince George.....	98	889	1,726,052	147,158	4,383,731	7,730,334
Prince Rupert.....	24	622	1,367,747	82,251	3,640,851	5,880,384
Quesnel.....	36	236	381,329	41,625	700,588	1,404,972
Revelstoke.....	18	129	234,625	33,181	515,544	1,054,011
Vancouver.....	1,225	33,536	78,793,345	4,392,716	204,642,985	358,620,526
Vernon.....	38	374	698,294	66,833	1,531,203	2,771,490
Victoria.....	204	4,224	10,019,644	732,434	18,945,110	37,637,880

CHAPTER XVII.—CONSTRUCTION

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The purpose of this Chapter is to co-ordinate available official statistics on the construction industry and to give, as far as possible, a complete summary of construction from year to year. The official statistics of the annual Census of Construction (given in Subsection 1 of Section 1) cover all new construction, maintenance and repair work completed during a given year by contractors, builders, public bodies, industrial plants, etc. This information is supplemented by data from an outside source (Subsection 2) on construction contracts awarded, which are in the nature of a forecast of the amount of construction work contemplated in a given year. Usually some time elapses after contracts are awarded before work actually is begun and, in the case of contracts for large-scale undertakings, the work is seldom finished within one year.

Section 1.—Statistics of the Construction Industry

Subsection 1.—Annual Census of Construction*

In conducting the Census of Construction for 1949 and 1950, sampling techniques were employed for the first time. A study of the characteristics of the components of the industry revealed a predominance of firms whose annual production was very small in relation to the total value of work performed by the industry as a whole in the same year. Therefore, it was decided that a less detailed report form could be completed by the majority of these small firms and a sample group chosen to which the regular form would be mailed. On the basis of this sample, estimates could be calculated for data not called for on the short form but necessary for the presentation of construction statistics.

The regular form requested the respondent to give, in addition to details of the type and value of work performed, information on such operating expenses as salaries and wages paid, monthly employment of wage-earners and cost of materials. The short form asked only for a classification of work by type and value. Estimates for salaries and wages and other details of operations were made for the short-form group, based on the answers to the regular-form questions. Thus, the value of work figures presented are not estimates but are tabulations of actual reports, since all known construction operators were canvassed for that information. Also, it

* Revised in the Construction Section, Industry and Merchandising Division, Dominion Bureau of Statistics. More detailed information is available in the D.B.S. annual report, *The Construction Industry in Canada*.

should be emphasized that, in the case of operation details, the sample was selected from a segment of the industry whose total annual production was small in relation to the total value of work performed by the industry.

The definition of 'construction' as used in the Census of Construction has been approved and authorized by the Canadian Construction Association. It embraces all new buildings and works, together with alterations, additions, conversions, maintenance and repairs effected to those existing. It also includes works relating to engineering and marine projects as well as to structures of all types; improvements, maintenance, etc., of steam and electric railway companies; and the actual installation of machinery excluding, of course, cost of the machinery to be installed.

The value of construction work performed during 1950 showed an increase of 23 p.c. over 1949. Building construction advanced in 1950 by 26 p.c. owing largely to an increase of 43 p.c. in residential building, the most important group in that classification, while engineering construction increased by 17 p.c. over 1949.

Each year since 1945 the cost of materials has amounted to around 50 p.c. of the total value of work performed. The percentages in 1949 and 1950 were 52 and 53 p.c., respectively.

In the following tables and chart, the figures for 1949 and 1950 include construction work undertaken by the labour forces of railway and telephone companies which previously were given separately. Figures for Newfoundland are also included for these two years.

1.—Value of Construction Work Performed, classified by Provinces, by Disposition and by Types of Construction, 1946-50

Provinces, Disposition and Type	1946	1947	1948	1949 ¹	1950 ¹
Province	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland.....	...	...	...	15,243	17,192
Prince Edward Island.....	2,382	3,071	5,424	7,424	9,590
Nova Scotia.....	40,858	52,897	73,507	92,657	94,780
New Brunswick.....	27,761	42,675	51,590	70,108	72,378
Quebec.....	225,582	338,515	421,476	553,233	605,861
Ontario.....	347,617	501,651	682,466	907,434	1,105,503
Manitoba.....	43,463	61,254	82,230	117,515	154,731
Saskatchewan.....	29,277	40,009	49,380	73,960	119,378
Alberta.....	51,573	67,651	109,448	150,592	255,558
British Columbia, Yukon and Northwest Territories.....	100,148	148,813	190,040	232,610	292,997
Canada.....	868,661	1,256,536	1,665,561	2,220,775	2,727,968
Disposition					
Contractors, builders, etc.....	775,452	1,097,382	1,486,846	2,033,802	2,470,263
Municipalities.....	34,082	47,341	58,882	72,062	75,212
Provincial government departments.....	43,943	93,172	88,755	62,339	116,866
Federal government departments.....	15,184	18,641	31,078	52,571	65,627
Type of Work					
Building construction.....	490,408	658,383	825,622	969,227	1,217,691
Engineering construction.....	220,517	395,026	539,965	897,615	1,046,285
Marine construction.....	15,913	22,639	37,608	52,833	48,526
Trade construction.....	141,763	180,488	262,366	301,100	415,516

¹ Includes work performed by railway, telephone, telegraph and other utility companies utilizing their own employees.

2.—Values of New and Other Construction Work Performed, classified by Types, 1949 and 1950

Type of Construction	1949			1950		
	New Construction	Repairs, Additions, etc.	Total	New Construction	Repairs, Additions, etc.	Total
Building Construction—1	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Dwellings and apartments.....	336,704	19,858	356,562	488,049	20,476	508,525
Grain elevators, factories, warehouses, farm and mine buildings	170,978	19,990	190,968	193,308	20,969	214,277
Oil refineries.....	2,968	4,875	7,843	32,928	8,346	41,274
Railway stations, offices, shops, engine houses, water and fuel stations.....	4,182	16,853	21,035	5,412	18,243	23,655
Hotels, clubs and restaurants.....	14,132	1,715	15,847	16,711	2,389	19,100
Office buildings, stores, theatres and amusement halls.....	137,906	19,708	157,614	140,278	23,327	163,605
Commercial garages and service stations.....	15,669	4,083	19,752	16,504	3,396	19,900
Broadcasting and radio stations.....	813	103	916	3,543	64	3,608
Aeroplane hangars.....	795	111	907	530	522	1,052
Schools and institutional buildings...	106,482	5,003	111,484	130,155	5,984	136,138
Churches, hospitals, etc.....	61,339	1,639	62,978	66,183	3,898	70,080
Armouries, barracks, drill halls, etc..	2,592	1,757	4,348	7,623	3,646	11,269
Other building.....	16,513	2,462	18,975	4,486	721	5,207
Totals, Building Construction ..	871,073	98,155	969,227	1,105,710	111,932	1,217,691
Engineering Construction—						
Streets, highways and parks.....	163,830	52,615	216,445	198,718	65,892	264,611
Bridges, culverts, subways, etc.....	26,375	9,931	36,306	40,304	13,777	54,082
Water, sewage and drainage systems.	53,766	7,936	61,702	58,482	10,584	69,066
Electric power plants, including dams and reservoirs, transmission lines etc.....	257,455	21,912	279,367	273,558	24,264	297,821
Railway construction, steam and electric.....	10,673	57,376	68,049	32,361	123,884	156,245
Telephone and telegraph lines and underground conduits.....	66,905	35,749	102,654	68,501	39,267	107,769
Aerodromes or landing fields.....	6,835	906	7,741	3,170	847	4,016
Gas and oil pipelines, storage tanks, pumping stations, etc.....	7,254	726	7,980	68,299	346	68,645
Other engineering, including installation of machinery.....	40,980	76,392	117,372	13,823	10,156	23,980
Totals, Engineering Construction.....	634,073	263,542	897,615	757,217	289,017	1,046,235
Marine Construction.....	46,093	6,739	52,833	42,104	6,422	48,526
Trade Construction.....	200,411	100,689	301,100	265,138	150,378	415,516
Grand Totals.....	1,751,650	469,125	2,220,775	2,170,169	557,799	2,727,968

1 Excludes trade construction.

3.—Principal Statistics of the Construction Industry, 1946-50

Item	1946	1947	1948	1949	1950
Firms reporting..... No.	23,793	26,542	21,909	22,961	41,886
Employees.....	198,851	250,330	284,019	362,828	383,549
Salaries and wages paid..... \$'000	344,893	482,907	605,496	816,609	919,547
Cost of materials used.....	459,966	654,996	835,917	1,154,126	1,443,903
Value of work performed!.....	868,661	1,256,536	1,665,561	2,220,775 ²	2,727,968 ²
New construction.....	577,572	1,001,910	1,383,553	1,761,650	2,170,169
Additions, alterations, maintenance and repair.....	291,289	254,626	282,008	469,125	557,799
Sub-contract work performed.....	143,981	213,277	225,612	261,083	316,470
New construction.....	115,344	182,860	202,821	234,890	286,042
Additions, alterations, maintenance and repair.....	28,637	30,417	22,791	26,193	30,428

¹ Includes sub-contract work indicated in the lower part of the table. ² Includes work performed by railways, telephone, telegraph and other utility companies utilizing their own employees.

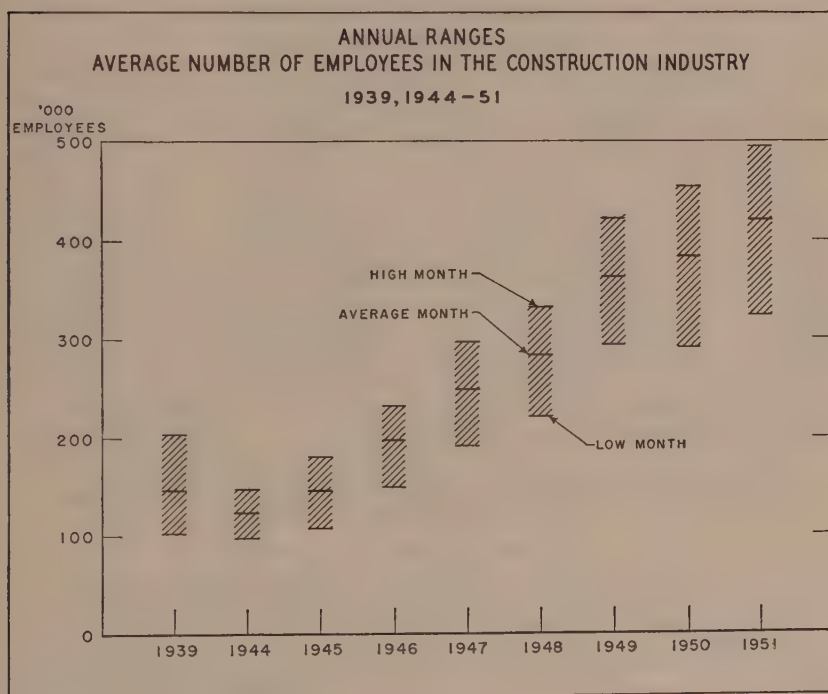
4.—Principal Statistics of the Construction Industry, classified by Provinces and by Disposition, 1949 and 1950

Province or Group	Reports Received	Salary- and Wage-earners	Salaries and Wages Paid	Cost of Materials	Value of Work Performed ¹		
					New Construction	Alterations, Maintenance and Repairs	Total
Province	No.	No.	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland.....	1949 210	3,591	7,070	7,047	10,585	4,658	15,243
	1950 288	3,500	6,707	8,293	13,889	3,303	17,192
Prince Edward Island...	1949 110	1,474	2,865	3,658	5,650	1,774	7,424
	1950 156	1,760	3,548	4,492	7,986	1,604	9,590
Nova Scotia.....	1949 782	18,202	36,707	47,400	65,679	26,978	92,657
	1950 1,235	17,726	36,469	48,762	69,260	25,520	94,780
New Brunswick.....	1949 690	13,414	26,055	36,827	51,204	18,904	70,108
	1950 897	12,595	25,999	39,008	48,049	24,329	72,378
Quebec.....	1949 4,892	88,996	199,593	292,408	460,390	92,843	553,233
	1950 8,233	87,238	204,041	317,967	506,668	99,193	605,861
Ontario.....	1949 9,999	142,915	330,152	467,658	718,413	189,021	907,434
	1950 18,512	152,177	377,684	570,252	898,207	207,296	1,105,503
Manitoba.....	1949 1,185	18,719	40,593	66,006	86,725	30,790	117,515
	1950 1,964	21,882	48,881	88,022	116,019	38,712	154,731
Saskatchewan.....	1949 826	13,111	28,436	39,450	46,817	27,143	73,960
	1950 1,580	13,854	32,321	72,995	86,791	32,587	119,378
Alberta.....	1949 1,540	23,963	55,459	75,423	118,849	31,743	150,592
	1950 3,477	30,566	74,118	139,799	202,977	52,581	255,558
British Columbia, Yukon and N.W.T....	1949 2,727	38,443	89,679	118,250	187,338	45,272	232,610
	1950 5,494	42,252	109,779	154,312	220,323	72,674	292,997
Canada.....	1949 22,961	362,828	816,609	1,154,126	1,751,650	469,125	2,220,775
	1950 41,886	383,549	919,547	1,443,993	2,170,169	557,799	2,727,968
Disposition							
Contractors and builders	1949 20,924	210,568	489,100	669,009	1,200,353	147,840	1,348,193
	1950 23,479	213,078	523,255	808,685	1,419,721	199,635	1,619,357
Owner-builders ²	1949 892	9,258	18,184	31,621	49,837	1	49,838
	1950 17,181	15,180	35,041	73,075	111,263	529	111,792
Industrial organizations	1949 246	15,130	31,294	63,682	72,786	32,119	104,905
	1950 276	12,782	39,496	117,278	134,158	33,947	168,105
Steam and electric rail- ways.	1949 72	46,293	99,350	92,611	35,183	158,967	194,150
	1950 68	46,365	100,223	99,884	39,421	162,040	201,461
Hydro-electric power and public utilities commissions.	1949 196	25,218	57,666	152,838	212,082	18,640	230,722
	1950 225	29,558	71,701	161,083	238,571	22,630	261,201
Telephone companies..	1949 11	13,221	37,134	51,346	72,691	33,303	105,994
	1950 11	13,909	41,277	50,213	71,637	36,810	108,347
Federal Government Departments.	1949 206	12,102	26,839	23,836	30,298	22,273	52,571
	1950 230	14,081	32,394	29,586	43,491	22,136	65,627
Provincial Government Departments.	1949 15	14,474	28,394	33,519	33,981	28,358	62,339
	1950 19	22,990	43,921	64,125	65,592	51,274	116,866
Municipalities.....	1949 399	16,564	32,647	35,663	44,438	27,624	72,062
	1950 397	15,606	32,240	39,974	46,414	28,798	75,212

¹ Includes work performed by railway, telephone, telegraph and other utility companies utilizing their own employees.

² Owner-builders in the "Under \$50,000" category were canvassed by number on a 10. pc. basis.

The following chart shows the movement of employees in the construction industry. The trend that began in 1945 continued through to 1951. A larger number of persons employed caused the 'average monthly' line to move steadily upwards, although in 1950 and 1951 the movement was less pronounced than in the previous years. At the same time, there are indications of a wider deployment between 'high month' and 'low month'. The former trend serves to point out that, in 1951, the industry was still in a position to absorb more units of labour. The latter trend indicates that the seasonal pattern of employment, since 1945, was becoming more pronounced.



Subsection 2.—Contracts Awarded and Building Permits Issued

In this Section statistics are given of work actually in sight either as contracts awarded or as building permits. These figures are related to those of work performed during the year only so far as the work thus provided for is completed and duly reported in the Census of Construction. Further, values of contracts awarded, and especially of building permits, are estimates (more often under-estimates) of work to be done. Obviously, these statistics and those of Subsection 1 cannot be expected to agree, since much work contracted for towards the end of any one year is often not commenced until the next and may extend into more than one year especially on large contracts.

Contracts Awarded.—According to figures published by MacLean Building Reports Limited, the value of contracts awarded in 1951 was more than double the value in 1949. The increase in 1951 over 1950 amounted to 50 p.c., which was more than accounted for by business, industrial and engineering contracts. The value of contracts awarded for residential building declined by 19 p.c. All provinces, except Quebec and New Brunswick, shared in the general increase, but the most important advances were made by British Columbia and Ontario, value of contracts in the former Province increasing from \$81,000,000 to \$382,000,000, and in the latter from \$597,000,000 to \$1,017,000,000.

5.—Values of Construction Contracts Awarded, 1916-51

(Source: MacLean Building Reports Limited)

Year	Value of Construction Contracts	Year	Value of Construction Contracts	Year	Value of Construction Contracts
	\$		\$		\$
1916.....	99,311,000	1928.....	472,032,600	1940.....	346,009,800
1917.....	84,841,000	1929.....	576,651,800	1941.....	393,991,300
1918.....	99,842,000	1930.....	456,999,600	1942.....	281,594,100
1919.....	190,028,000	1931.....	315,482,000	1943.....	206,103,900
1920.....	255,605,000	1932.....	132,872,400	1944.....	291,961,800
1921.....	240,133,300	1933.....	97,299,800	1945.....	409,032,700
1922.....	331,843,800	1934.....	125,811,500	1946.....	663,355,100
1923.....	314,254,300	1935.....	160,305,000	1947.....	718,137,100
1924.....	276,261,100	1936.....	162,588,000	1948.....	954,082,400
1925.....	297,973,000	1937.....	224,056,700	1949.....	1,143,547,300 ¹
1926.....	372,947,900	1938.....	187,277,900	1950.....	1,525,764,700 ²
1927.....	418,951,600	1939.....	187,178,500	1951.....	2,295,499,200 ²

¹ Includes \$3,431,100 for Newfoundland, from Apr. 1 to Dec. 31.

² Includes Newfoundland.

6.—Values of Construction Contracts Awarded, by Provinces and Types of Construction, 1946-51

(Source: MacLean Building Reports Limited)

Province and Type of Construction	1946	1947	1948	1949	1950	1951
	\$	\$	\$	\$	\$	\$
Newfoundland.....				3,431,100 ¹	10,065,000	10,509,400
Prince Edward Island.....	650,200	3,991,900	2,410,300	4,498,500	2,063,500	3,251,000
Nova Scotia.....	13,489,400	28,855,000	36,624,200	33,941,600	35,643,300	67,837,000
New Brunswick.....	26,698,500	27,017,300	28,980,100	19,536,100	34,592,100	20,983,900
Quebec.....	226,809,500	255,202,400	327,111,900	355,408,300	533,971,700	480,106,000
Ontario.....	252,787,400	258,709,300	350,612,300	421,098,900	597,161,900	1,017,426,900
Manitoba.....	25,741,500	34,446,100	45,414,700	78,517,300	67,985,300	91,157,700
Saskatchewan.....	19,497,500	23,040,200	18,273,600	43,306,200	27,563,900	39,604,700
Alberta.....	38,971,900	47,425,100	74,071,700	104,380,600	134,878,500	183,075,100
British Columbia.....	58,709,200	39,449,800	70,583,600	79,428,700	81,239,500	381,547,500
Grand Totals.....	663,355,100	718,137,100	954,082,400	1,143,547,300	1,525,764,700	2,295,499,200
RESIDENTIAL—						
Apartments.....	18,998,800	12,049,600	30,069,100	69,254,000	59,297,800	55,819,900
Residences.....	194,051,700	185,146,700	342,986,800	396,821,500	482,386,500	381,289,800
TOTALS, RESIDENTIAL.....	213,050,500	197,196,300	373,055,900	466,075,500	541,684,300	437,109,700

¹ Nine months.

6.—Values of Construction Contracts Awarded, by Provinces and Types of Construction, 1946-51—concluded

Type of Construction	1946	1947	1948	1949	1950	1951
	\$	\$	\$	\$	\$	\$
BUSINESS—						
Churches.....	14,426,500	11,263,000	16,425,500	21,677,400	24,100,400	25,274,900
Public garages.....	16,359,900	15,739,200	13,098,900	12,316,800	13,781,600	10,838,000
Hospitals.....	23,863,700	40,298,900	49,313,800	42,405,900	59,967,700	85,746,400
Hotels and clubs.....	16,071,600	14,541,200	27,628,800	16,957,500	41,611,000	32,095,700
Office buildings.....	18,912,400	34,620,600	34,137,900	40,031,400	53,240,200	29,108,200
Public buildings.....	7,411,600	16,197,900	19,919,400	46,078,800	61,854,500	150,483,700
Schools.....	23,019,500	45,648,400	79,156,000	80,982,500	99,296,400	139,938,800
Stores.....	29,271,200	28,685,500	42,348,000	36,218,400	43,677,100	33,497,100
Theatres.....	8,921,600	7,823,200	4,814,500	6,132,300	6,173,600	2,713,900
Warehouses.....	28,047,600	24,662,300	28,413,100	21,464,700	36,722,400	37,985,400
TOTALS, BUSINESS.....	186,805,500	239,530,200	315,258,900	324,265,700	440,404,900	547,682,100
INDUSTRIAL.....	138,328,500	113,495,000	74,878,100	104,040,300	141,043,200	451,753,200
ENGINEERING—						
Bridges.....	5,279,200	7,037,400	7,562,000	9,182,900	16,624,300	19,340,400
Dams and wharves.....	10,379,700	41,663,700	13,215,000	20,716,900	38,561,900	32,155,000
Sewers and water mains.....	13,144,900	16,281,200	20,038,600	27,856,400	31,005,800	63,333,300
Roads and streets.....	56,941,600	53,707,800	45,856,900	49,396,300	62,386,300	94,621,900
General engineering.....	39,425,200	49,225,500	99,217,000	142,013,300	224,054,000	649,503,600
TOTALS, ENGINEERING.....	125,170,600	167,915,600	190,889,500	249,165,800	402,632,300	858,954,200

Building Permits.—Statistics of building permits were first collected in 1910, when the series covered 35 urban centres; in 1920 they were extended to cover 58 municipalities, including unincorporated suburban areas, which were becoming increasingly important as residential areas for persons working within the municipal boundaries of urban centres. In 1940 the series was again extended to cover 204 municipalities. In 1948 the coverage was expanded further to include 507 municipalities, however, until plans are advanced, it is felt desirable to maintain comparability with earlier issues of the Year Book by retaining the '204' list.

The estimated value of proposed construction as indicated by building permits issued in 1951 amounted to \$681,161,938, 15 p.c. less than the 1950 value of \$801,765,092.

7.—Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities,¹ 1950 and 1951

NOTE.—Statistics for these series covering years previous to 1950 will be found in the corresponding tables of earlier editions of the Year Book. For the 35 cities marked (●) the record goes back to 1910; the 23 places marked (○) were added in 1920.

Province and Municipality	1950	1951	Province and Municipality	1950	1951
	\$	\$		\$	\$
Prince Edward Island—			Nova Scotia—concluded		
○Charlottetown.....	620,290	785,550	Liverpool.....	109,425	96,735
Nova Scotia—			○New Glasgow.....	721,525	753,980
Amherst.....	189,443	186,270	New Waterford.....	209,500	116,600
Bridgewater.....	210,400	283,400	North Sydney.....	189,300	1,541,850
Dartmouth.....	2,593,580	949,965	●Sydney.....	2,655,109	2,509,978
Glace Bay.....	445,332	828,636	Sydney Mines.....	252,200	406,664
●Halifax.....	14,793,237	5,440,410	Truro.....	699,033	592,910
			Yarmouth.....	1,173,570	132,387

¹ Exclusive of the municipalities of Newfoundland.

**7.—Estimated Value of Proposed Construction as Indicated by Building Permits
Issued in 204 Municipalities,¹ 1950 and 1951—continued**

Province and Municipality	1950	1951	Province and Municipality	1950	1951
New Brunswick—	\$	\$	Ontario—continued	\$	\$
Campbellton.....	897,180	134,220	Burlington.....	1,724,775	1,034,390
Chatham.....	174,330	196,800	Campbellford.....	115,850	57,400
Dalhousie.....	463,525	1,004,300	○ Chatham.....	3,827,248	2,065,089
○ Fredericton.....	2,305,891	1,274,190	Cobourg.....	535,500	360,690
● Moncton.....	6,500,563	2,146,841	Cochrane.....	152,622	60,994
Newcastle.....	180,700	335,200	Collingwood.....	202,660	262,843
● Saint John.....	1,835,147	2,205,830	Cornwall.....	672,125	992,532
St. Stephen.....	875,956	1,116,565	Dundas.....	1,017,778	449,640
			Eastview.....	1,549,700	1,249,625
			Etobicoke Twp.....	34,092,204	34,937,570
Quebec—			Forest Hill.....	3,045,445	3,633,087
Cap de la Madeleine.....	1,620,650	2,507,873	Fort Erie.....	765,029	939,346
Chicoutimi.....	1,730,845	4,250,860	Fort Frances.....	1,073,811	1,566,746
Coaticook.....	116,439	108,510	● Fort William.....	1,986,007	2,522,160
Drummondville.....	1,878,350	1,236,000	○ Galt.....	1,269,584	1,481,502
Granby.....	2,684,795	2,468,034	Gananoque.....	181,400	214,017
Grand Mère.....	900,700	939,615	Gloucester Twp.....	1,007,250	2,053,162
Hampstead.....	2,192,570	965,345	Goderich.....	181,441	852,755
Hull.....	5,024,810	2,161,950	● Guelph.....	2,964,790	2,097,645
Iberville.....	291,900	199,815	Haileybury.....	39,640	137,795
Joliette.....	1,172,105	2,081,050	● Hamilton.....	18,255,001	24,933,959
Jonquière.....	1,377,525	807,350	Hanover.....	234,300	528,875
Lachine.....	7,054,743	5,328,297	Hawkesbury.....	254,755	355,935
Laprairie.....	264,100	596,700	Huntsville.....	90,200	135,000
La Tuque.....	491,800	241,700	Ingersoll.....	217,988	118,012
Lévis.....	419,500	1,296,400	Kapuskasing.....	549,300	550,810
Longueuil.....	1,121,680	1,613,255	Kenora.....	283,603	567,152
Mégantic.....	123,855	119,520	● Kingston.....	3,641,594	1,833,595
● Montreal (● Maison- neuve).....	112,914,976	73,558,070	Kirkland Lake (Teck Twp.).....	454,037	203,755
Montreal East.....	4,260,440	1,264,310	● Kitchener.....	6,617,341	4,956,234
Montreal North.....	3,471,995	1,368,200	Leamington.....	517,525	384,800
Montreal West.....	91,100	329,800	Leaside.....	3,563,480	3,297,098
Mount Royal.....	5,995,747	7,359,820	Lindsay.....	554,825	402,875
Noranda.....	1,920,735	256,450	Listowel.....	112,550	246,695
Outremont.....	1,992,850	1,577,500	● London.....	10,801,025	7,141,120
Pointe-aux-Trembles.....	883,282	1,196,725	Long Branch.....	1,387,495	641,525
Pointe Claire.....	2,780,700	2,520,435	Mimico.....	809,804	1,029,760
● Quebec.....	12,721,398	6,648,746	Napanea.....	75,900	1,031,586
Rimouski.....	3,020,850	2,720,760	Nepean Twp.....	2,156,170	2,025,586
Rivière-du-Loup.....	328,875	200,900	New Liskeard.....	271,958	321,425
Rouyn.....	1,143,700	455,125	Newmarket.....	476,000	359,700
Ste. Agathe-des-Monts.....	372,950	80,700	New Toronto.....	1,110,150	2,790,100
Ste. Anne-de-Bellevue.....	48,248	110,555	○ Niagara Falls.....	2,472,412	2,151,931
St. Hyacinthe.....	3,730,600	947,700	North Bay.....	869,312	1,337,623
St. Jean.....	1,950,400	4,033,084	North York Twp.....	52,241,324	40,016,552
St. Jérôme.....	1,916,865	994,875	Oakville.....	1,563,428	1,614,492
St. Joseph.....	223,842	210,327	Orillia.....	977,925	333,617
St. Lambert.....	3,787,755	4,243,640	○ Oshawa.....	3,332,501	4,506,834
St. Laurent.....	10,868,150	6,351,625	● Ottawa.....	36,100,884	30,445,363
○ Shawinigan Falls.....	2,039,640	1,495,350	○ Owen Sound.....	946,785	1,219,135
● Sherbrooke.....	5,644,956	4,817,942	Paris.....	410,805	299,923
Sorel.....	292,765	1,279,500	Parry Sound.....	602,990	77,035
● Three Rivers.....	6,014,925	2,898,250	Pembroke.....	1,044,637	893,825
Val d'Or.....	379,125	282,935	Perth.....	272,310	419,690
Valleyfield.....	2,054,693	1,851,060	Perth.....	272,310	419,690
Verdun.....	2,859,800	2,718,100	● Peterborough.....	3,976,158	4,553,687
● Westmount.....	1,510,280	2,324,455	Petrolia.....	70,450	50,500
			● Port Arthur.....	3,398,269	1,742,076
			Port Colborne.....	840,801	675,045
Ontario—			Preston.....	570,777	652,331
Amherstburg.....	320,280	253,200	Renfrew.....	877,150	354,005
Barrie.....	2,042,418	2,278,225	○ Riverside.....	4,108,978	2,344,643
○ Belleville.....	1,988,360	1,185,578	● St. Catharines.....	3,436,194	4,883,581
Bowmanville.....	413,900	360,860	St. Marys.....	68,250	96,050
Bracebridge.....	101,950	99,650	● St. Thomas.....	622,862	4,406,522
Brampton.....	1,968,083	1,939,508	○ Sarnia.....	2,308,306	7,413,616
● Brantford.....	2,443,134	1,866,833	○ Sault Ste. Marie.....	3,400,608	3,266,088
Brantville.....	864,761	476,490	Scarboro Twp.....	22,538,200	34,771,650
			Simcoe.....	1,084,650	371,650
			Smiths Falls.....	418,095	1,042,475

¹ Exclusive of the municipalities of Newfoundland.

7.—Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities,¹ 1950 and 1951—concluded

Province and Municipality	1950	1951	Province and Municipality	1950	1951
\$	\$		\$	\$	
Ontario—concluded			Saskatchewan—concluded		
● Stratford.....	865,782	649,476	● Saskatoon.....	6,830,860	3,719,134
● Sudbury.....	7,096,225	3,691,125	Swift Current.....	897,343	331,935
● Swansea.....	952,890	834,270	Weyburn.....	931,757	265,990
● Tillsonburg.....	359,075	236,000	Yorkton.....	1,049,200	744,590
● Timmins.....	380,834	312,585			
● Toronto.....	52,442,662	47,167,715	Alberta—		
● Trenton.....	373,645	212,585	● Calgary.....	25,990,734	22,322,868
● Wallaceburg.....	407,405	267,350	● Drumheller.....	384,675	130,330
● Waterloo.....	1,275,105	1,850,389	● Edmonton.....	46,584,673	36,100,034
○ Welland.....	1,395,522	1,126,876	○ Lethbridge.....	4,513,525	4,820,675
● Weston.....	1,168,425	526,565	○ Medicine Hat.....	1,261,980	1,580,125
● Whitby.....	1,194,187	423,135			
● Windsor.....	9,308,655	12,228,405	British Columbia—		
○ Woodstock.....	1,373,428	1,105,978	Chilliwack.....	692,135	1,217,580
○ York Twp.....	9,335,850	8,542,650	Cranbrook.....	227,582	869,422
○ York East Twp.....	9,471,797	7,796,074	Fernie.....	75,413	258,360
Manitoba—			○ Kamloops.....	388,449	1,211,016
● Brandon.....	1,517,405	1,400,055	● Kelowna.....	1,481,449	1,125,384
● Brooklands.....	56,510	197,240	○ Nanaimo.....	723,217	330,727
● Dauphin.....	434,146	833,005	● Nelson.....	368,930	864,438
● North Kildonan.....	200,200	203,100	● New Westminster.....	2,592,660	2,362,770
● Portage la Prairie.....	713,960	442,620	○ North Vancouver.....	1,361,220	1,390,895
○ St. Boniface.....	1,245,481	888,280	● Prince George.....	555,675	932,825
● Selkirk.....	261,000	184,000	○ Prince Rupert.....	350,600	304,323
● The Pas.....	121,050	131,775	● Revelstoke.....	144,920	204,820
● Transcona.....	292,850	304,945	● Rossland.....	214,325	89,176
● Winnipeg.....	19,451,100	16,484,300	Trail.....	716,638	713,225
Saskatchewan—			● Vancouver.....	34,949,669	23,942,309
Biggar.....	47,793	15,350	● Vernon.....	1,096,734	487,158
● Estevan.....	96,360	282,780	● Victoria.....	5,660,227	4,087,011
● Melville.....	227,010	166,375			
● Moose Jaw.....	1,349,795	999,405	Totals—		
● North Battleford.....	685,630	490,510	204 Municipalities.....	801,765,092	681,161,938
● Prince Albert.....	1,830,257	1,866,717	58 Municipalities ○.....	533,608,683	430,507,541
● Regina.....	6,467,223	6,069,657	35 Municipalities ●.....	472,845,295	371,466,436

¹ Exclusive of the municipalities of Newfoundland.

The indexes given in Table 8 show, as far as possible, the fluctuations in the building costs and their effect upon construction work and employment. The relative proportions of material and wage costs in general building are difficult to determine since such proportions vary with the type of building and the centres studied. Pre-war experience, as indicated by a special study made for 15 cities, shows that the proportions of cost of materials to cost of labour in all construction averaged two-thirds for the former to one-third for the latter. The increase in the cost of recent building operations has probably been much more than is indicated by the increase in the indexes of wholesale prices and wages shown and the proportions of these items to total costs have, no doubt, undergone some variation owing to changes in types and methods of construction and to the greater use of machinery.

Four of the largest cities—Montreal, Toronto, Winnipeg and Vancouver—accounted for \$161,152,394 or 24 p.c. of the value of building permits issued in 1951. In 1950 the same cities showed a value of \$219,758,407 or 27 p.c. of the total, and in 1929 the value for these cities was \$126,387,555.

8.—Values of Building Permits Issued in 204 Municipalities and Index Numbers of the Building Construction Industries, 1942-51

Norm.—These 204 municipalities are named in Table 7.

Year	Value of Building Permits, 204 Municipalities	Average Index Numbers of—		
		Wholesale Prices of Building Materials (1935-39=100)	Wages in Construction Industries ¹ (1939=100)	Employment in Building Construction ² (1939=100)
	\$			
1942.....	104,236,278	131.1	118.6	231.3
1943.....	80,190,123	137.9	127.7	234.7
1944.....	128,728,465	144.8	129.6	139.5
1945.....	197,187,160	144.8	131.1	149.1
1946.....	383,596,698	153.4	143.9	213.4
1947.....	373,231,249	189.3	155.0	279.1
1948.....	536,057,597	222.6	176.3	311.8
1949.....	616,160,593	229.2	184.2	340.0
1950.....	801,765,092	249.9	194.0	356.8
1951.....	681,161,938	289.8	..	395.3

¹ Compiled by the Department of Labour.

² As reported by employers.

Section 2.—Housing Construction

Subsection 1.—Government Aid to House Building*

Federal Government Assistance, 1951.—Publicly assisted house building in Canada operates under two distinct types of arrangement. In one type, Government financial assistance in the form of mortgage loans is extended to prospective homeowners and builders through the National Housing Act, 1944, the Veterans' Land Act, 1942, the Farm Improvement Loans Act, 1944, and the Canadian Farm Loan Act, 1927. In the other, the Federal Government carries on direct house-building activities of veterans' rental units, armed service married quarters and, in conjunction with the provincial governments, joint housing projects for rental. During the seven-year period 1945-51, completions under these government-sponsored plans accounted for about one-third of total new permanent dwellings.

The Central Mortgage and Housing Corporation is the Federal Government agency responsible for most of the publicly assisted housing activities. It was incorporated by an Act passed in December 1945 to administer the National Housing Act, 1944, and earlier housing Acts, to provide facilities for the rediscounting of mortgages for lending institutions and to co-ordinate government activities in the housing field. In 1948, the functions of Wartime Housing Limited were transferred to its administration. In November 1950, the charter of Wartime Housing Limited was revived to form Defence Construction Limited and entrusted with carrying out construction of defence projects requisitioned by the Department of National Defence. Central Mortgage and Housing Corporation provides management and supervisory services to Defence Construction Limited.

The National Housing Act, 1944.—The National Housing Act, 1944, constitutes the principal legislation of the Federal Government in the field of housing. During 1951 three major changes were introduced in housing measures under this Act. The first change occurred in February 1951 when the one-sixth loan, which was in

* Prepared in the Economic Research Department, Central Mortgage and Housing Corporation.

addition to the basic joint loan provided for home-ownership building, was discontinued. At the same time, direct assistance by the Central Mortgage and Housing Corporation on rental insurance projects was also suspended and, in addition, the amount of rentals guaranteed on projects financed by lending institutions, formerly calculated on the basis of an 85 p.c. mortgage, was to be calculated on the basis of an 80 p.c. mortgage. These changes were introduced to permit an accelerated flow of construction resources into the expanding defence and defence-supporting construction program, and to keep the housing program within the limits of prospective total resources.

A further change occurred in June 1951 when the rate of interest payable by a borrower on joint loans was increased from $4\frac{1}{2}$ p.c. to 5 p.c. per annum calculated semi-annually. Increases of $\frac{1}{2}$ to 1 p.c. in the interest rate were also effected with respect to rental insurance loans, primary producer housing loans and limited-dividend corporation housing loans. These changes came as a result of the increase, early in the year, in conventional mortgage interest rates and other long-term interest rates.

The third change occurred in October 1951, when down-payment requirements under the Act were reduced to 20 p.c. for prospective home-owners and for builders of dwellings for sale, provided that there was an agreed sale or contract price. Special provisions were also made for loans on dwellings for defence workers on the basis of a down-payment of 10 p.c. With respect to rental housing, the regulations provide that, failing financing from lending institutions, Central Mortgage and Housing Corporation will again consider applications for direct loans under the Rental Insurance Plan on an 80 p.c. basis. Also, for approved rental insurance projects for defence workers, direct loans of 85 p.c. of the estimated project cost and guarantees on the basis of such loan may be approved. In such cases the maximum return of rentals to the owner was extended from three to five years.

The Central Mortgage and Housing Corporation joins with approved private lending institutions in making loans to prospective home-owners or builders of dwellings for sale or for rental. The Corporation advances 25 p.c. of the loan and the lending institution 75 p.c. These joint loans are amortized over a period of not more than 30 years and, in the case of loans to prospective home-owner defence workers, for a period not exceeding 25 years.

The Central Mortgage and Housing Corporation may make direct loans for house building in areas beyond the normal operations of lending institutions on a basis similar to that for joint loans. Special provisions are effective in the case of prospective home-owner defence workers or builders of dwellings for sale to defence workers. Direct loans may also be made for low- and medium-rental units to limited-dividend companies and companies engaged in the primary industries of logging, lumbering, fishing and mining. Up to the end of 1951, 19 limited-dividend companies had been formed under the sponsorship of business companies or local groups supplemented in some cases by municipal grants or contributions from service clubs. Many of the units constructed through these companies are occupied by widows and old-age pensioners. In addition, when private lending institution funds are not available for suitable rental insurance projects, such projects may be financed by direct loans.

The Rental Insurance Plan, instituted in 1948, is designed to encourage the construction of rental housing accommodation. Owners of projects built under the Plan are guaranteed a return of rentals sufficient to pay taxes, operating expenses,

debt service and a minimum return of 2 p.c. on equity of the owner. From 1948 to December 1951, projects have been approved involving 14,600 units with an estimated cost of \$106,000,000.

Under the land-assembly provisions of the Act, which provide for the development of raw land into serviced lots for residential purposes and the sale at prices considerably below the market price for comparable lots, lending institutions are guaranteed the recovery of their investment together with an annual return of 2 p.c. Land-assembly projects have also been undertaken directly by the Corporation.

The construction of veterans' rental housing units, first carried out by Wartime Housing Limited and from 1948 by Central Mortgage and Housing, was nearing completion by the end of 1951. These rental units were constructed under federal-municipal agreements. The administration of the construction of armed service married quarters, also in the hands of the Corporation since 1948, continued during 1951, but on a reduced scale compared with 1949 and 1950.

Sect. 35 of the National Housing Act, 1944, provides that, following agreements between a provincial government and the Government of Canada, Central Mortgage and Housing Corporation may undertake, jointly with the province, the development of a housing or land-assembly project. Projects are financed to the extent of 75 p.c. of expenditure by the Government of Canada and 25 p.c. by the province. By December 1951, all provinces except Alberta and Prince Edward Island had passed complementary legislation. Under the legislation, three main types of housing agreement have evolved: (1) the construction of houses for rental on an economic or sub-economic basis; (2) a combined rental-housing and land-assembly project in which serviced land not used for the rental-housing project is made available for sale to builders and prospective home-owners; and (3) the assembly and servicing of residential lots for sale to builders and prospective home-owners.

During 1951, seven rental-housing agreements were approved for a total of 1,225 dwellings including the construction of 935 rental units at Windsor, St. Thomas, Fort William and Hamilton, Ont., 50 units at Prince Rupert, B.C., 88 units at Saint John, N.B., and 152 units at St. John's, N'f'ld. In 1950, one rental-housing project consisting of 140 units was initiated at St. John's, N'f'ld.

Four combined land-assembly and rental-housing agreements were entered into between Central Mortgage and Housing Corporation and the Province of Ontario during 1951. Projects at Brockville, Guelph, Kitchener and Trenton consist of 225 rental units and an additional 1,855 serviced residential lots for sale to builders and prospective home-owners.

Land-assembly agreements were approved with respect to projects for the acquisition and installation of services on 1,211 lots at Atikokan, Ont., Trail, B.C., and St. John's and Cornerbrook, N'f'ld. In 1950, land-assembly projects were negotiated for the servicing of 2,082 residential lots at Windsor, St. Thomas, London and Ottawa in Ontario.

At the end of 1951, negotiations were under way on rental projects at Lindsay, Sarnia and Prescott in Ontario involving 115 units, and for 100 dwellings at St. John's, N'f'ld.

Combined land-assembly and rental projects were also under consideration at the end of 1951 for 138 dwellings and 374 supplementary residential lots at North Bay, Sault Ste. Marie and Stratford in Ontario.

The Canadian Farm Loan Act, 1927.—Under this legislation federal long-term loan assistance for housing as well as for other farm purposes is provided. (See the 1950 Year Book, pp. 403-405.)

The Farm Improvement Loans Act, 1944.—This Act provides for guarantees in respect of intermediate and short-term loans made by approved lending agencies to farmers for housing and other purposes. (See the 1950 Year Book, pp. 405-406.)

The Veterans' Land Act, 1942.—This Act is administered by the Department of Veterans Affairs and provides a form of loan and grant assistance to veterans for housing and other purposes (see pp. 287-288.)

Statistics of Federal Assistance in the Housing Program, 1935-51.—The extent of Federal Government assistance to house-building in Canada is shown in Table 9. The year 1935 marked the passage of the Dominion Housing Act, 1935, and the entry of the Federal Government into the housing field on a continuing basis. This Act was succeeded by the National Housing Acts of 1938 and 1944. These three Acts account for most of the federal loan assistance to house-building. (See the 1950 Year Book, pp. 650-652.)

9.—Dwellings Completed with and without Federal Government Assistance, 1935-51

(Exclusive of the Yukon and Northwest Territories)

Year	With Federal Government Assistance				Without Federal Government Assistance	Total
	Direct Government ¹	Loans	Guarantees	Total ¹		
	'000	'000	'000	'000	'000	'000
1935.....	—	0.5	—	0.5	32.4	32.9
1936.....	—	1.1	0.1	1.2	38.1	39.3
1937.....	—	1.5	0.9	2.4	46.2	48.6
1938.....	—	2.4	0.9	3.3	40.7	44.0
1939.....	—	5.2	1.1	6.3	45.4	51.7
1940.....	—	6.2	0.8	7.0	45.5	52.5
1941.....	1.7	4.9	—	6.6	50.2	56.8
1942.....	7.6	2.7	—	10.3	36.9	47.2
1943.....	6.4	1.3	0.1	7.8	29.0	36.8
1944.....	2.8	0.1	—	2.9	39.9	42.8
1945.....	3.4	2.0	0.2	5.6	42.9	48.5
1946.....	14.0	5.6	0.4	20.0	47.2	67.2
1947.....	10.0	10.6	0.4	21.0	55.2	79.2
1948.....	8.7	13.9	0.5	23.1	55.1	81.2
1949 ²	9.5	23.4	2.7	35.6	55.4	91.0
1950.....	6.8	32.5	2.5	41.8	50.0	91.8
1951.....	3.5	29.3	1.5	34.3	50.5	84.8
Totals, 1935-51.....	74.4	143.2	12.1	229.7	766.6	996.3

¹ Exclusive of a small number of dwellings built by Federal Government Departments as part of their normal operations. ² Includes Newfoundland since 1949.

Details by provinces of loans approved under the National Housing Act, 1944, for the years 1945-51 are shown in Table 10. A total of 84,800 dwellings were completed in Canada in 1951. About 3,500 were built directly by the Federal Government; 29,300 were built with the aid of federal loans, including joint loans under the National Housing Act, 1944; and 1,500 were built with guarantee assistance by the Federal Government.

10.—Net Loans Approved under the National Housing Act, 1944, by Provinces, 1945-51

Year and Item	N'tl'd.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
1945—												
Loans..... No.	—	—	60	23	481	2,341	693	96	469	675	—	4,838
Dwellings.. "	—	—	60	23	701	2,480	703	96	485	839	—	5,387
Amount.... \$'000	—	—	270	101	3,045	10,278	3,034	410	2,099	3,274	—	22,511
1946—												
Loans..... No.	4	100	84	832	3,254	1,004	215	626	1,222	—	—	7,341
Dwellings.. "	4	113	206	1,931	5,345	1,020	363	880	1,965	—	—	11,827
Amount.... \$'000	21	532	1,001	8,965	26,168	5,017	1,771	4,023	8,449	—	—	55,951
1947—												
Loans..... No.	10	248	102	1,793	3,442	1,188	146	916	1,041	—	—	8,886
Dwellings.. "	37	269	104	3,186	3,676	1,289	149	991	1,232	—	—	10,933
Amount.... \$'000	170	1,364	562	14,423	19,115	6,577	735	4,960	5,325	—	—	53,230
1948—												
Loans..... No.	35	285	286	2,895	6,539	1,106	94	1,972	2,125	—	2	15,339
Dwellings.. "	38	316	303	5,183	6,999	1,372	102	2,156	2,352	—	2	18,828
Amount.... \$'000	223	1,629	1,871	27,163	42,075	7,576	797	11,504	11,673	—	13	104,524
1949—												
Loans..... No.	21	23	268	194	3,293	8,598	1,469	200	2,595	1,495	—	18,159
Dwellings.. "	21	23	296	225	8,552	9,353	1,569	193	2,837	1,832	—	24,904
Amount.... \$'000	125	150	1,614	1,297	45,715	56,059	9,402	1,081	15,207	8,835	—	139,499
1950—												
Loans..... No.	48	20	504	340	7,994	16,454	1,729	356	3,935	3,059	—	34,440
Dwellings.. "	51	20	558	348	13,980	17,830	1,826	360	4,279	3,503	—	42,756
Amount.... \$'000	369	140	3,526	2,450	85,686	133,050	13,163	2,255	26,444	22,137	—	289,223
1951—												
Loans..... No.	33	7	173	123	2,630	7,700	1,010	135	1,983	1,124	—	14,918
Dwellings.. "	33	7	187	126	4,233	9,416	1,100	137	2,659	1,405	—	19,303
Amount.... \$'000	239	41	1,210	869	26,035	63,523	6,810	797	16,162	8,011	—	123,697

11.—Dwellings Completed with and without Federal Government Assistance, by Provinces, 1950 and 1951

(Exclusive of the Yukon and Northwest Territories)

Year and Type of Assistance	N'tl'd.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals
1950	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
With Federal Government Assistance—											
Direct Federal Government House Building—											
Department of National Defence.....	22	159	220	144	100	1,397	371	—	202	338	2,953
Veterans rental projects by Central Mortgage and Housing Corporation....	50	—	66	166	754	1,073	582	284	367	499	3,841
Totals, Direct Federal Government House Building..	72	159	286	310	854	2,470	953	284	569	837	6,794
Federal Government Loans—											
National Housing Act, 1944	12	8	354	131	7,988	10,206	1,526	195	2,564	2,337	25,321
Veterans' Land Act, 1942...	—	19	47	67	327	976	111	78	179	345	2,149
Canadian Farm Loan Act, 1927.....	—	—	—	4	6	8	10	21	14	8	71
Totals, Federal Government Loans.....	12	27	401	202	8,321	11,190	1,647	294	2,757	2,690	27,541

For footnote, see end of table.

**11.—Dwellings Completed with and without Federal Government Assistance,
by Provinces, 1950 and 1951—concluded**

Year and Type of Assistance	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1950											
Federal Government Guarantees—											
Rental Insurance under the National Housing Act, 1944.....	—	—	—	—	775	745	33	18	333	70	1,974
Farm Improvement Loans Act, 1944.....	—	2	1	1	14	61	55	151	196	30	511
Totals, Federal Government Guarantees ¹	—	2	1	1	789	806	88	169	529	100	2,485
Totals, With Federal Government Assistance¹.....	84	188	688	513	9,964	14,466	2,688	747	3,855	3,627	36,820
Totals, Without Federal Government Assistance.....	1,632	205	1,909	2,078	18,159	18,030	2,026	2,092	3,593	5,210	54,934
Grand Totals.....	1,716	393	2,597	2,591	28,123	32,496	4,714	2,839	7,448	8,837	91,754
1951											
With Federal Government Assistance—¹											
Direct Federal Government House Building—											
Department of National Defence.....	—	97	174	92	111	1,177	254	—	340	415	2,660
Veterans Rental Projects by Central Mortgage and Housing Corporation.....	—	—	—	—	224	65	—	93	109	216	707
Federal - Provincial - Municipal Projects.....	140	—	—	—	—	—	—	—	—	—	140
Other projects.....	—	—	—	—	32	—	—	—	—	—	32
Totals, Direct Federal Government House Building.....	140	97	174	92	367	1,242	254	93	449	631	3,539
Federal Government Loans—											
National Housing Act, 1944.....	33	20	409	190	6,873	13,184	1,554	249	2,462	2,073	27,047
Veterans' Land Act, 1942... ..	16	12	49	60	223	1,094	125	67	204	315	2,165
Canadian Farm Loan Act, 1927.....	—	—	2	—	6	10	8	16	14	8	64
Totals, Federal Government Loans.....	49	32	460	250	7,102	14,288	1,687	332	2,680	2,396	29,276
Federal Government Guarantees—											
Rental Insurance under the National Housing Act, 1944.....	—	—	—	—	114	711	4	—	—	80	909
Farm Improvement Loans Act, 1944.....	—	3	4	1	18	81	107	142	193	38	587
Totals, Federal Government Guarantees ¹	—	3	4	1	132	792	111	142	193	118	1,496
Totals, With Federal Government Assistance¹.....	189	132	638	343	7,601	16,322	2,052	567	3,322	3,145	34,311
Totals, Without Federal Government Assistance.....	752	158	1,471	991	20,205	16,383	1,889	1,474	2,965	4,211	50,499
Grand Totals.....	941	290	2,109	1,334	27,806	32,705	3,941	2,041	6,287	7,356	84,810

¹ Exclusive of a small number of dwellings built by Federal Government Departments as part of their normal operations.

Provincial Government Assistance.—As stated previously (*see* p. 672), all provinces except Alberta and Prince Edward Island had, by December 1951, passed complementary legislation respecting Sect. 35 of the National Housing Act, which provides for joint federal-provincial housing and land-assembly projects. In addition, separate legislation with respect to housing has been enacted in the Provinces of Quebec and Ontario.

Quebec.—An "Act to grant to municipalities special powers to remedy the housing shortage" (S.Q., 12 Geo. VI, c. 7) empowers municipal corporations under certain conditions to cede land at \$1 per unit to co-operative building societies or individuals and to reduce the valuation of any new dwelling for taxation purposes to 50 p.c. of its real value for a period of 30 years. The date fixed for the expiry of these powers was extended to Feb. 1, 1954, by Bill No. 16, dated Jan. 30, 1951.

An "Act instituting an enquiry into the housing problem" (S.Q., 12 Geo. VI, c. 8) authorized the appointment of a commission of from three to five members for this purpose and set aside \$100,000 for the carrying out of the enquiry. Bill No. 17, dated Jan. 30, 1951, provided a supplementary credit of \$25,000 for the completion of the enquiry.

The Charter of the City of Quebec (S.Q., 9 Geo. VI, c. 71) was amended by Bill No. 107, dated Feb. 28, 1951. Under the amendment, the City is authorized to borrow a maximum of \$500,000 for the purpose of making a loan on second mortgage to any person, association, corporation or limited-dividend company wishing to build residential dwellings under the National Housing Act, 1944. The dwellings may be of single or double type. Apartment houses or row houses containing up to ten dwellings are also eligible for second-mortgage loans under certain conditions. No loan shall exceed \$1,000 per dwelling.

An "Act to improve housing conditions" (S.Q., 12 Geo. VI, c. 6) was amended by Bill No. 5, assented to Nov. 15, 1951. Under the amendment, the Government is empowered to pay a subsidy on interest charges in excess of 3 p.c. on loans approved for the building of new dwellings of one or two units. The interest charged by the lender must not exceed 6 p.c. on loans up to \$7,000 in the case of a single-family dwelling and \$12,000 in the case of a two-unit dwelling. Before the amendment, the Government was authorized to pay an interest subsidy in excess of 2 p.c. on loans on which the interest rate did not exceed 5 p.c. per annum. The maximum amount of loan was \$6,000 in the case of a single-family dwelling and \$10,000 in the case of a two-unit dwelling. The amendment also provides for an addition of \$10,000,000 to the \$20,000,000 voted since 1948 for the purpose of paying the interest subsidy.

Ontario.—During April 1952, the Ontario Legislature approved five Bills designed to promote the building of new houses in urban and rural farm and non-farm areas throughout the Province.

The Housing Development Amendment Act, 1952, empowers the Province and a municipality to enter into joint housing projects, and empowers a municipality to contribute to the cost of a housing project or to issue debentures for the purpose of a housing project without reference to its municipal board or the assent of its electors. For industries locating in rural areas and in small communities, the Province and municipality may participate with the Central Mortgage and Housing Corporation in the development of joint housing projects, part of the cost of which will be borne by the Corporation. Under certain conditions, the Province may

expropriate land in municipalities for the purpose of housing projects. The Act came into force Apr. 10, 1952, and amended the Housing Development Act (R.S.O. 1950, c. 174).

Under the Planning Amendment Act, 1952, municipalities with an approved official plan may designate an area within the municipality as a redevelopment area and, upon the passage of a by-law, may acquire land within that area and clear and prepare it for residential, commercial, industrial or other designated purpose. The Act came into force May 1, 1952, and amended the Planning Act (R.S.O. 1950, c. 227).

The Rural Housing Assistance Act, 1952, authorizes the establishment of a Crown Company—the Rural Housing Finance Corporation—which is empowered to lend and invest mortgage money in order to provide financial assistance in the building of new houses in rural villages and other rural areas. The Corporation may lend money independently or in co-operation with the Central Mortgage and Housing Corporation or with any approved lending institution. The Act came into force on Apr. 10, 1952.

The Junior Farmer Establishment Act, 1952, provides for the establishment of a corporation for the purpose of making loans to assist young qualified farmers in the establishment, development and operation of their farms. The Corporation may make loans for the erection and improvement of farm houses. A loan may be secured as first-mortgage on farm property and shall not exceed \$15,000, repayable in 25 years. The Act came into force on Apr. 10, 1952.

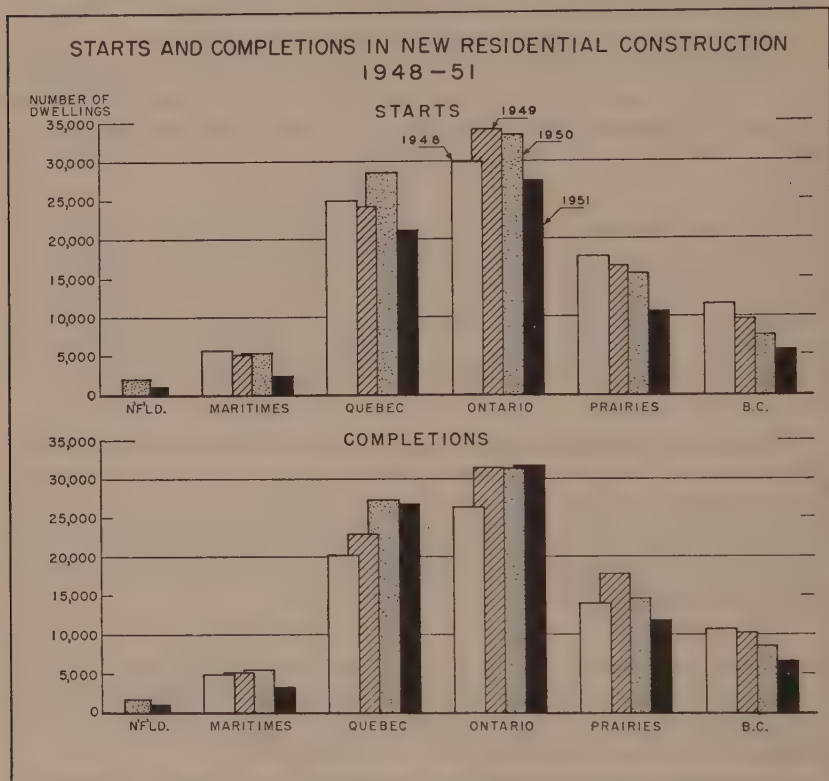
The Elderly Persons Housing Aid Act, 1952, authorizes the Province to make grants to any municipality to assist in the construction and equipment of low-rental housing units for elderly persons. The amount of any grant will be based on the lower of \$500 for each dwelling or of 50 p.c. of the capital cost of the project to the municipality. The Act came into force on Apr. 10, 1952.

Subsection 2.—Construction of Dwelling Units

In 1951, the volume of house-building declined for the first time in the post-war years to a level below the rate prevailing in the period 1948 to 1950. Completions of dwellings in 1951 declined 8 p.c. from 91,800 units in 1950 to 84,800 in 1951. New dwellings started in 1951, after running ahead of 1950 for the first four months of the year, began to decline in May and dropped progressively for the remainder of the year. In 1951, 72,100 new dwellings (including conversions) were started, a decrease of 24 p.c. from the 95,300 started in 1950. During 1951 approximately 80 p.c. of completed dwellings were built in urban centres and about 74 p.c. of all completions were single houses. It is estimated that about 25 p.c. were built for rental and the remainder were for owner-occupancy.

Regionally, starts and completions during 1951 decreased from 1950 by 26 and 2 p.c., respectively, in Quebec and by about 54 and 39 p.c., respectively, in the Maritimes. Ontario showed a decrease of 18 p.c. in starts and a gain of 1 p.c. in completions. The Prairie Provinces and British Columbia had a decrease of

31 p.c. and 24 p.c., respectively, in starts and 19 p.c. and 22 p.c. in completions. Newfoundland had a decrease of 47 p.c. in starts and 45 p.c. in completions.



Tables 12, 13 and 14 summarize the results of surveys conducted by the Dominion Bureau of Statistics and the Central Mortgage and Housing Corporation.

12.—New Dwelling Units Completed, by Types, 1949-51

(Exclusive of the Yukon and Northwest Territories)

Type	1949	1950	1951
	No.	No.	No.
New Construction—			
One-family detached.....	68,422	68,685	60,366
Two-family detached.....	7,250	7,376	7,568
Row or terrace.....	480	145	585
Apartment or flat.....	10,962	12,540	12,540
Other.....	419	269	251
Totals, New Construction.....	87,533	89,015	81,310
Conversions.....	3,422	2,739	3,500
Grand Totals.....	90,955	91,754	84,810

13.—New Dwelling Units Completed, by Provinces, 1950 and 1951

(Exclusive of Conversions)

Province	1950			1951		
	Urban	Rural	Total	Urban	Rural	Total
	No.	No.	No.	No.	No.	No.
Newfoundland.....	377	1,339	1,716	429	512	941
Prince Edward Island.....	249	126	375	68	222	290
Nova Scotia.....	1,774	799	2,573	1,102	840	1,942
New Brunswick.....	1,336	1,209	2,545	447	696	1,143
Quebec.....	23,264	3,973	27,237	22,116	4,570	26,686
Ontario.....	24,267	7,051	31,318	26,530	5,202	31,732
Manitoba.....	3,613	999	4,612	2,499	1,311	3,810
Saskatchewan.....	1,985	828	2,813	1,286	740	2,026
Alberta.....	6,237	1,029	7,266	4,934	1,123	6,057
British Columbia.....	7,420	1,140	8,560	5,976	707	6,683
Totals.....	70,522	18,493	89,015	65,387	15,923	81,310

14.—New Dwelling Units Completed, by Metropolitan Areas, 1949-51

(Exclusive of Conversions)

Metropolitan Area	1949	1950	1951	1949	1950	1951
	No.	No.	No.	p.c.	p.c.	p.c.
St. John's, Nfld.....	...	299	326	...	0.3	0.4
Halifax, N.S.....	780	708	620	0.9	0.8	0.8
Saint John, N.B.....	345	332	98	0.4	0.4	0.1
Quebec, Que.....	1,090	1,473	1,045	1.2	1.7	1.3
Montreal, Que.....	14,394	15,826	16,316	16.4	17.8	20.1
Ottawa, Ont.....	975	1,938	2,343	1.1	2.2	2.9
Toronto, Ont.....	6,712	9,373	13,026	7.7	10.5	16.0
Hamilton, Ont.....	1,909	1,511	1,757	2.2	1.7	2.2
London, Ont.....	1,204	1,325	1,261	1.4	1.5	1.5
Windsor, Ont.....	1,416	1,196	940	1.6	1.3	1.2
Winnipeg, Man.....	3,228	3,070	2,127	3.7	3.4	2.6
Vancouver, B.C.....	5,831	5,028	4,340	6.6	5.7	5.3
Victoria, B.C.....	1,021	1,166	844	1.2	1.3	1.0
Totals, Metropolitan Areas.....	38,905	43,245	45,043	44.4	48.6	55.4
Totals, Canada ¹.....	87,533	89,015	81,310	100.0	100.0	100.0

¹ Exclusive of the Yukon and Northwest Territories.

CHAPTER XVIII.—LABOUR*

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—The Government in Relation to Labour

Subsection 1.—Federal Labour Legislation

The Federal Department of Labour was established in 1900 by the Conciliation Act which provided machinery to aid in preventing and settling labour disputes, and required the Department to collect, compile and publish statistical and other relevant information. The Department assumed, too, the administration of the Fair Wages Policy adopted in the same year for the protection of workmen employed in the execution of Federal Government contracts and on works aided by grants from public funds.

At present, in addition to the statutory duty of disseminating information concerning labour and industrial matters, the Minister of Labour is responsible for the administration of certain statutes: Conciliation and Labour Act, 1906; Government Annuities Act, 1908; Fair Wages and Hours of Labour Act, 1935; Unemployment Insurance Act, 1940; Vocational Training Co-ordination Act, 1942; Reinstatement in Civil Employment Act, 1946; Merchant Seamen Compensation Act, 1946; Government Employees Compensation Act, 1947; and Industrial Relations and Disputes Investigation Act, 1948.

Fair Wages Policy.—Wages and hours of work on contracts for the manufacture of equipment and supplies for the Federal Government and for construction were governed for some years by a Resolution of the House of Commons (1900) which was later incorporated in an Order in Council and amended from time to time. Contracts for construction are now regulated under the Fair Wages and Hours of Labour Act, 1935, and by an Order in Council of June 7, 1922, as amended Apr. 9, 1924, and May 2, 1949, and consolidated in November 1949. Hours on such

* Except as otherwise noted, this Chapter has been revised under the direction of A. MacNamara, C.M.G., Deputy Minister, Department of Labour, Ottawa.

work are limited to eight per day and 44 per week except in an emergency or in special cases where exemption is granted by Order in Council; wages to be paid are those current for the type of work in the district concerned or, if there are no current rates, fair and reasonable ones determined by the Minister of Labour.

Wages and hours for work on contracts for equipment and supplies are regulated by the Order in Council of 1922 as amended on Dec. 31, 1934, and May 2, 1949. The hours on such work must be those fixed by the custom of the trade in the district where the work is performed, or fair and reasonable hours. The wages must be current or fair and reasonable, but in no event shall they be less than those established by statute or regulation of the province in which the work is being performed.

The Industrial Relations and Disputes Investigation Act.—This legislation came into effect by proclamation on Sept. 1, 1948, revoking the Wartime Labour Relations Regulations, P.C. 1003, in effect since March 1944, and repealing the Industrial Disputes Investigation Act which had been in force from 1907 until suspended by the Wartime Regulations in 1944. The Act protects proceedings commenced and decisions, orders and certifications made under the wartime legislation in so far as these involve services authorized by the Act.

The Act applies only to industries within federal jurisdiction, viz., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries both international and interprovincial, aerodromes and air transportation, radio broadcasting stations, and works declared by Parliament to be for the general advantage of Canada or of two or more provinces. However, the Act provides that provincial authorities, if they so desire, may enact similar legislation for application to employees within provincial jurisdiction and make mutually satisfactory arrangements with the Federal Government for the administration of such legislation by the federal authorities.

In general, the Act in its important features provides that employees and employers shall have the right to organize and bargain collectively, that trade unions may be certified as bargaining agents for groups of employees, and that trade unions and employers are required upon notice to bargain collectively in good faith. The Act provides for invoking collective bargaining negotiations and for the mediation of conciliation officers and conciliation boards in reaching collective agreements. Employees may change bargaining agents at times under conditions specified in the Act which also prescribes conditions affecting the duration and renewal of collective agreements. Collective agreements are required to contain provision for the arbitration of disputes concerning the meaning or violation of such agreements and where such a provision is lacking application may be made for its establishment. The Act prohibits unfair labour practices, i.e., the interference with or domination of trade unions by employers or interference, discrimination and coercion in trade union activity. The conditions precedent to strike and lockout action are provided in the Act. Industrial inquiry commissions may be appointed to investigate industrial matters or disputes.

The Minister of Labour is charged with the administration of the Act and is directly responsible for the provisions affecting the appointment of conciliation officers, conciliation boards and industrial inquiry commissions, consent to prosecute, and complaints that the Act has been violated or that a party has failed to bargain in good faith.

The Canada Labour Relations Board administers provisions concerning the certification of bargaining agents, the writing of a procedure into a collective agreement for the final settlement of disputes concerning the meaning or violation of such agreement, and the investigation of complaints made to the Minister that a party has failed to bargain collectively.

Detailed statistics concerning activities under the Act may be found in the Annual Report of the Department of Labour. In brief, the Canada Labour Relations Board has received 319 applications for certification since Sept. 1, 1948, 173 being granted, 81 rejected, 49 withdrawn and 16 pending as of Sept. 30, 1952.

Of the 139 industrial disputes dealt with under the conciliation provisions of the Act, 90 were settled by conciliation officers and conciliation boards, 19 were not settled, 6 lapsed and 24 were pending as of Mar. 31, 1952.

Subsection 2.—Provincial Labour Legislation

Labour legislation in Canada is, for the most part, a matter for the provincial legislatures since it usually governs, in some respects, the contract of service between employer and employee or the contract between members of a trade union which forms the basis of the union, or it regulates conditions in local work-places. The right to contract is a civil right and the British North America Act, which distributes legislative powers between the Parliament of Canada and the provincial legislatures, grants to the provinces power to enact laws in relation to "civil rights" and, with certain exceptions, "local works and undertakings".

In each province, except Prince Edward Island, a Department of Labour (in Alberta, the Department of Industries and Labour) is charged with the administration of labour laws. Legislation for the protection of miners is administered by departments dealing with mines.

Factory legislation in eight provinces and shops legislation in several provinces prohibit child labour, regulate the hours of women and young persons, and provide for safety and health. Other labour statutes in most provinces include minimum-wage legislation and maximum-hours laws, legislation to ensure freedom of association, to promote collective bargaining and to provide for the settlement of industrial disputes, and laws to provide for apprenticeship and the licensing of certain classes of workmen. The Industrial Standards Acts in Saskatchewan, Ontario, New Brunswick and Nova Scotia, the Alberta Labour Act and the Fair Wage Act in Manitoba enable the wages and hours of work agreed upon at a conference of representatives of employers and employed in designated trades to be made legal throughout the trade concerned. The Quebec Collective Agreement Act permits collective agreements between employers and trade unions to be made binding on all in the industry. Workmen's compensation laws in all provinces are administered by independent boards.

Provincial labour legislation enacted in 1951 is outlined in the following paragraphs.

Newfoundland.—The *Workmen's Compensation Act, 1950*, was brought into force on Apr. 1, 1951. Amendments made to the Act at the 1951 session fixed the benefits payable. In case of death of a workman, his widow is entitled to a lump sum of \$100 and \$50 a month until re-marriage or death, together with \$10 a month for each of her dependent children under 16, but the total monthly compensation payable to the workman's dependants, exclusive of burial expenses, may not exceed 66 $\frac{2}{3}$ p.c.

of his average earnings. In non-fatal cases, a workman who is permanently and totally disabled is entitled to a pension for life equal to $66\frac{2}{3}$ p.c. of his average earnings, and if he suffers a permanent partial disability, a payment of $66\frac{2}{3}$ p.c. of the difference in his earnings before and after the accident. The maximum amount of yearly earnings to be taken into account is \$3,000. The waiting period under the Act is six days. Another amendment removes the fishing industry from the Act, except for the processing, canning and packing of fish and fish products on shore by persons other than the crews of fishing vessels. Masters and crews of fishing vessels are covered by the former individual liability Act.

The *Labour Relations Act, 1950*, was amended to repeal the provisions which required a trade union to comply with the *Trade Union Act* in order to be granted certification and the right to bargain with an employer under the Act.

A new *Regulation of Mines Act, 1951*, was passed, replacing an earlier statute, making detailed provision for mine safety. The minimum age for boys employed underground is raised from 13 to 18 years.

The *Apprenticeship Act, 1951*, provides for a provincial system of apprenticeship training. Under the Act, a person of at least 16 years of age may enter into a contract of apprenticeship with an employer in a skilled trade, under which he agrees to complete a minimum of 4,000 hours of employment in the trade and related courses of technical instruction. Under the direction of the Minister of Labour, a Director of Apprenticeship inspects and supervises apprenticeship training and a tripartite Provincial Apprenticeship Board has authority to register all apprentices, approve and certify apprenticeship contracts, and generally regulate the training and certification of apprentices.

The *Vocational Education Act, 1951*, provides for the establishment of vocational schools.

The *School Attendance Act, 1942*, was amended to raise the school-leaving age from 14 to 15 years.

Prince Edward Island.—The *Workmen's Compensation Act, 1949*, was amended to increase the amount payable for the funeral expenses of a deceased workman from \$100 to \$150, the monthly allowance for a widow from \$40 to \$50 and that for each child under 16 years of age from \$10 to \$12.50. A further amendment provides that the total monthly compensation payable to dependants in death cases may not exceed 75 p.c. of average earnings, instead of the previous $66\frac{2}{3}$ p.c. The minimum payment to a disabled worker is increased from \$12.50 to \$15 per week and the waiting period is reduced from seven to four days; three diseases are added to the schedule of industrial diseases; and several new classes of workers are brought under the Act.

Nova Scotia.—The *Employment of Children Act, 1951*, prohibits the employment of children under 14 years of age in specified industries, limits their working hours in other occupations to eight in a day, or to three in a day while school is in session unless an employment certificate is obtained, and forbids night work between 10 p.m. and 6 a.m. for children under 14 years. Inspectors appointed by the Minister of Labour may inspect premises and make any inquiry necessary for the enforcement of the Act.

The *Women's Minimum Wage Act, 1951*, replaces a 1920 Statute and applies to all women employees throughout the Province, except farm workers and domestic servants. Wider powers are given to the Minimum Wage Board, more specific provision is made for inspection, and higher penalties are prescribed for violation of the Act.

The *Workmen's Compensation Act* was amended to raise the monthly benefit payable for each child under 16 years of age in the care of a parent from \$12.50 to \$15 and the payment for an orphan child from \$22.50 to \$25.

The *Coal Mines Regulation Act* and the *Metalliferous Mines and Quarries Regulation Act* were revised and many safety provisions added. The minimum age for employment underground in metal mines is raised from 16 to 18 years.

New Brunswick.—Amendments to the *Workmen's Compensation Act* increase from \$2,500 to \$3,000 the maximum annual earnings on which compensation is computed, and raises the sum payable for burial expenses from \$150 to \$200.

The *Labour Relation Act, 1949*, was amended to permit a municipality to bring any group of its employees under the Act. Another amendment prohibits any attempt to influence the manner in which an employee votes in a representation vote or any other vote conducted by the Labour Relations Board.

Quebec.—The *Labour Relations Act* was amended to permit the term of collective agreements to be one, two or three years. Previously, one year was the maximum term.

Amendments to the *Labour Relations Act* and to the *Trade Disputes Act* provide that decisions of the Quebec Labour Relations Board or of councils of arbitration will not be subject to revision by the courts.

Ontario.—The *Fair Employment Practices Act, 1951*, the first legislation of its kind in Canada, forbids employers to refuse to employ, to discharge or to discriminate against any person because of race, creed, colour, nationality, ancestry or place of origin, and forbids trade unions to discriminate against any person for any of these reasons. Expressions of discrimination in application forms or advertisements or written or oral inquiries in connection with employment are prohibited. Employers of fewer than five persons, and religious, philanthropic, educational, fraternal or social non-profit organizations and domestic servants in private homes are not covered by the Act. Written complaints of discrimination must be filed by the persons affected. Charges are dealt with first by conciliation procedure and then, if necessary, by prosecution when fines up to \$50 may be imposed for an individual and \$100 for a corporation, union, or employment agency. The Act is administered by the Fair Employment Practices Branch of the Department of Labour.

The *Female Employees Fair Remuneration Act, 1951*, prohibits an employer from discriminating between male and female employees by paying a female employee at a lower rate than a male employee doing the same work in the same establishment. The machinery for dealing with charges of discrimination is the same as that established under the *Fair Employment Practices Act*. Offenders against the Act are liable to fines up to \$100. The Act, the first equal pay Act to be passed in Canada, became effective on Jan. 1, 1952.

The *Workmen's Compensation Act* was amended to increase the maximum annual earnings on which compensation is based from \$3,000 to \$4,000. The lump sum payable to the widow of a deceased workman is raised from \$100 to \$200, and the amount allowed for funeral expenses from \$125 to \$200. The waiting period is reduced from seven to five days.

A new *Boilers and Pressure Vessels Act* consolidates and revises the former *Steam Boilers Act* that governed the inspection of boilers during construction and repair, and the section of the *Factory, Shop and Office Building Act* providing for the inspection of boilers in factories, shops, restaurants and other buildings.

Manitoba.—The *Hours and Conditions of Work Act, 1949*, was amended to include provisions concerning work on public holidays, notice of termination of employment and a weekly day of rest. Overtime payment at the rate of time and one-half or compensatory time off must be given for any work done on seven specified public holidays in all industries and occupations except farming. Termination of employment without notice is prohibited where the period of employment is not fixed. Both employers and employees must give notice of intention to terminate employment. Where wages are paid once a month or oftener, the period of notice must correspond to the employee's pay period. The *One Day's Rest in Seven Act* was repealed, and the provision for a weekly rest-day in specified industries is now included in the *Hours and Conditions of Work Act*.

The *Remembrance Day Act, 1951*, makes Nov. 11 a public holiday on which work may be done only in specified essential services and industries or with a special permit from the Minister of Labour.

Amendments to the *Workmen's Compensation Act* shorten the waiting period from 14 to seven days, increase from \$2,500 to \$3,000 the maximum annual earnings on which compensation may be computed, raise the minimum weekly payment in cases of temporary total disability from \$12.50 to \$15, and bring the members of municipal volunteer fire brigades under the Act.

The *Vacations with Pay Act, 1947*, was amended to require an annual vacation with pay of two weeks to be given after three consecutive years of employment.

Saskatchewan.—The *Workmen's Compensation Act* was amended to make learners eligible for compensation, to raise the monthly benefits from \$50 to \$60 for a widow and from \$15 to \$20 for each child under 16 years, and to increase the minimum monthly payment to the dependants of a deceased workman from \$50 to \$60 where the widow or invalid widower is the sole dependant, from \$65 to \$80 for a widow and one child, and from \$75 to \$90 for a widow and two or more children.

The *Hours of Work Act* was amended to make its application the same as that of the *Minimum Wage Act*. This amendment was declared in effect on Mar. 1, 1952.

An amendment to the *Minimum Wage Act*, which applies to all occupations except farming and domestic service in the cities, towns and villages and to mining, logging, lumbering and factory operations in any part of the Province, authorizes the Minimum Wage Board to fix minimum rates of pay for employees who work and for those who do not work on eight specified public holidays.

The *Trade Union Act* was changed to remove the provision which permitted the Labour Relations Board to require an employer to disestablish a company-dominated organization. The Act now gives the Board power to determine whether a labour organization is company-dominated and makes it an unfair labour practice for an employer to bargain with such an organization.

The *Boiler and Pressure Vessel Act, 1948*, was amended to provide for shop inspection of boilers and pressure vessels while under construction and annual inspection of such vessels.

The *Apprenticeship and Tradesmen's Qualification Act* was amended to make provision for the appointment of advisory and examining boards for designated trades. The schedule of designated trades was replaced.

The *Wages Recovery Act, 1951*, permits an employee to lay a complaint against his employer for non-payment of wages before a justice of the peace or police magistrate who, after summoning the employer to appear before him, may order the employer to pay the wages found to be due, up to a limit of \$200. The new Act repeals and replaces the *Masters and Servants Act*.

Alberta.—The *Industrial Wages Security Act*, which applies to the mining and lumbering industries, was amended to permit employers in cases authorized by the Minister of Industries and Labour to furnish security for the payment of wages in instalments. Employers in box factories and woodworking plants are exempted from the requirement to deposit security for wages with the Department before beginning operations each year.

The administration of the *Factories Act*, the *Welding Act* and the *Electrical Protection Act* was transferred from the Department of Public Works to the Department of Industries and Labour.

British Columbia.—The *Public Works Fair Wages and Conditions of Employment Act, 1951*, centralizes the fair wage policy for public works contracts under the jurisdiction of the Minister of Labour. The Act requires that all persons employed in the execution of a contract with the Provincial Government for any public work or on works subsidized by the Province must be paid "fair wages", that is, wages generally accepted as current in the district for that class of work and must work not longer than eight hours a day and 44 hours a week, except where arrangements are made as provided for by the *Hours of Work Act* in cases of emergency or otherwise. If a contractor fails to pay the proper wages, an employee may make a claim direct to the Minister supervising the carrying out of the contract, and the claim may be paid from the moneys in the hands of the Crown for securing the performance of the contract.

The *Factories Act* was revised and the schedule that listed the types of factories to which the Act applied was repealed. A broader definition of "factory" is inserted in the Act to ensure that all types of factories are covered as well as shipyards, laundries and elevators. New sections are added governing ventilation in factories where harmful gases or dusts are present. Six types of factories are declared exempt from the requirement to obtain a permit from the inspector for work on the public holidays specified in the Act.

Amendments to the *Apprenticeship Act* provide for the inspection of establishments where apprentices are employed and make apprenticeship open to adults over 21 years as well as to minors of over 15 years of age.

By a new amendment, the *Annual Holidays Act* does not apply where an annual holiday with pay has been granted under a collective agreement signed by a certified bargaining agent and the holiday provision has been approved by the Minister of Labour.

An Act was passed authorizing a committee of the Legislature to inquire into the *Industrial Conciliation and Arbitration Act* and its administration.

Regulation of Wages and Hours of Labour.—The regulation of wages and hours of persons in private employment in Canada is within provincial jurisdiction, and all the provinces, except Prince Edward Island, have legislation on the subject.

In Nova Scotia, the minimum wage law applies only to women, while in Ontario, though the Act applies to both sexes, the Orders apply only to women. In Manitoba, Alberta and New Brunswick, there are separate Orders for men and women and also in British Columbia but in the latter Province certain Orders cover both sexes. In Quebec and Saskatchewan, Orders apply to both sexes. The Newfoundland Minimum Wage Act, 1950, applies to both male and female workers and is similar to the Acts in the other provinces. In Quebec, under the Collective Agreement Act, hours and wages and also apprenticeship, vacations with pay and family allowances provisions established by a collective agreement voluntarily entered into by employers and unions or groups of employees may be made legally binding, by Order in Council, on all employers and employees in the industry in the district covered by the agreement, if the parties are sufficiently representative of the industry. At Mar. 31, 1950, 99 agreements had been generalized to apply either throughout the Province or to a certain district. These agreements covered 192,228 workers and 20,711 employers. The agreements in force throughout the Province applied to the following industries: building materials, the manufacture of women's cloaks and suits, dresses, millinery, men's and boys' clothing, men's and boys' hats and caps, fine gloves and work gloves, shoes, furniture, paints, corrugated and uncorrugated paper boxes, tanning, lithographing, and elevator construction. Other agreements concern industries in particular cities or parts of the Province including all building trades and printing trades in the large urban centres and many rural districts. From Mar. 31, 1950, to the end of 1951, four new agreements were extended for the first time, and five were repealed affecting municipal employees, barbers and hairdressers, and clock and watch repairmen in certain areas. New agreements extended for the first time and applicable throughout the Province apply to the manufacture of men's and boys' shirts and the manufacture of ladies' handbags, etc.

The Industrial Standards Acts of Nova Scotia, New Brunswick, Ontario and Saskatchewan and the Alberta Labour Act provide that wages and hours agreed upon at a conference of representatives of employers and employees called by the Minister of Labour or his representative may be made legally binding by Order in Council on the industry in the area concerned. The Nova Scotia Act applies only to construction work at Halifax, Dartmouth and Sydney.

In Nova Scotia ten schedules for individual building trades were in force during 1951, all of which were renewals of previous schedules. In New Brunswick, three schedules were in force at Mar. 31, 1951, two of which were renewals. Since that date, two new schedules have been made binding.

In Ontario there were 134 schedules in force at Mar. 31, 1950. Throughout the Province, schedules were in effect for brewery workers, cloakmakers, the men's and boys' clothing industry, men's and boys' hats and caps and the hard furniture industry. In the construction industry, one schedule covered several building trades in one city, and 55 schedules, each for a single trade in a single locality, covered one or more trades in 28 localities. In other industries also, schedules were in effect only for certain zones; for bakers in one zone, for soft furniture manufacturing in one, for coal hoisting in one, for the coal industry in one, for taxi-drivers in one, for the retail gasoline service in four and for barbers in 64 zones. From Mar. 31, 1950, to the end of 1951, 29 new schedules were made binding, six of which were made for the first time.

In Saskatchewan, 16 schedules were in effect at Dec. 31, 1950. These included one for barbers covering the whole Province; others covered bakers and salesmen, carpenters, electrical workers, painters, shoe repairers and beauty culture operators in one or more areas. During 1951 two schedules were renewed.

In Alberta, 22 schedules were in effect at the end of 1951. These included, in one or more areas, bakers and bakery salesmen, certain individual building trades, dairy employees, garage and service station employees, radio service employees, laundry and dry-cleaning employees and barbers. In 1950 and 1951, five new schedules were made binding, including one for the first time.

Part II of the Manitoba Fair Wage Act provides similar machinery for fixing wages and hours in any business, trade or undertaking, except agriculture. Orders in Council, under this legislation, have been passed fixing wages and hours in the baking industry and the barbering and hairdressing trades.

Five provinces, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, have statutes that either place absolute limits on working hours or require time and one-half the regular rate to be paid if work is continued after specified limits. There is, in addition, an Act of limited application in Quebec. In the provinces that have no special hours-of-work legislation, the only statutory regulation of hours, apart from that described above under Industrial Standards Acts and the Quebec Collective Agreement Act, is that imposed by factories Acts, mines Acts and, in Newfoundland, an Act governing shops. In New Brunswick and Quebec, the limits imposed by the factories Acts apply only to women and boys under 18 years. Several Minimum Wage Acts give authority for the regulation of hours as well as wages.

Minimum Wage Regulations.—Table 1 shows the minimum rates in effect in June 1952 for several classes of establishments in the principal cities. In New Brunswick and British Columbia, the rates for all workers, and in Manitoba the rates for men, apply throughout the Province. In other provinces, rates vary according to zone. The rates given apply to the hours specified or to the normal work-week of the establishment, if less, except at Montreal and Winnipeg.

1.—Minimum Weekly Rates for Experienced Workers in Certain Cities, June 1952

Item and Type of Establishment	Halifax ¹	Saint John ²	Montreal	Toronto ¹	Winnipeg ³	Regina ⁴	Edmonton ⁵	Vancouver ⁶
Hours per week. . .	44-48	48	48-60 ⁷	48	44	44	44	44
	\$	cts. per hour	cts. per hour	\$	\$	\$	\$	\$
Factories.....	16-80	35	46	16-80	19-50	24	24	0-40 ⁸
Laundries, etc.....	16-80	35	46	16-80	19-50	24	24	0-40 ⁸
Shops.....	16-80	35	46	16-80	19-50	24	24	18
Hotels, restaurants, etc.....	16-80	28	40 ⁹	16-80	19-50	24	24	22
Beauty parlours...	16-80	35	46	16-80	19-50	24	24	20
Theatres and amusement places.....	16-80	35	46	16-80	19-50	24	24	18
Offices.....	16-80	35	46	16-80	19-50	24	24	18

¹ Females only.

² Females; 55 cents for men in canning or processing of fish, vegetables or fruit.

³ Females; 50 cents for men applying to 48-hour week.

⁴ Rates apply to 36 hours or more.

⁵ Females;

\$26 for men over 21 years.

⁶ In hotels, beauty parlours, theatres and amusement places, rates apply to 40 hours or more; in shops to 39 hours or more; and in offices to 36 hours or more.

⁷ Rates apply to 48 hours in factories and offices, except in specified cases; 54 hours in laundries, shops, beauty parlours and theatres; 60 hours in hotels.

⁸ Hourly rates.

⁹ Head waiters and kitchen help, 46 cents; cooks, 53 cents.

Regulations of Hours and Annual Holidays.—In Ontario, there is a maximum eight-hour day and 48-hour week for the workers to whom the statute applies. In Alberta, the maximum daily and weekly hours in the cities of Calgary, Edmonton, Lethbridge and Medicine Hat are eight and 44; in the remainder of the Province they are eight and 48. In British Columbia, hours are limited to eight in a day and 44 in a week. In these three provinces, the Acts apply to most workers, except farm labourers and domestic servants. In Saskatchewan, an Act of 1947 requires time and one-half to be paid for work after eight hours daily and 44 hours weekly. The Act applies to all workplaces in centres over 300 in population and to any area where mining, logging, lumbering or factory operations are carried on. A Manitoba Act of 1949 requires time and one-half to be paid for work done after eight hours in a day and after 48 hours in a week for men workers and 44 for women. The Act covers most industrial workers in the Province. In all provinces that have Acts regulating hours, longer hours may be worked in an emergency or by permission of the administrative authority.

Six provinces have provided for annual holidays with pay for workers in most industries. In five of these provinces—Quebec, Ontario, Manitoba, Alberta and British Columbia—workers are entitled to a week's holiday with pay after a year of employment. Two weeks holiday is given in Saskatchewan after a year of employment, in Alberta after two years of employment, and in Manitoba after three years of employment. A worker employed for less than a year is entitled, in Quebec, to a half-day for each month of employment and in Saskatchewan to one day for each month. Coal miners in Alberta are entitled to one days holiday with pay for every 20 days worked in a month but not more than two weeks holiday in a year.

Excluded from the holiday provisions are farm workers in all provinces and domestic servants in all but Manitoba and Saskatchewan. The Manitoba Act also excludes independent contractors, and railway and express companies under federal jurisdiction. In addition, Quebec exempts forest operations, public corporations, janitors and watchmen, and certain part-time workers; Ontario, professional workers, salesmen, funeral directing and embalming; Manitoba and Saskatchewan, ranching and market gardening; and British Columbia, professional workers and horticulture.

Section 2.—Occupations of the Gainfully Occupied Population

Detailed statistics on the occupations of the people of Canada in 1941 will be found in Vol. VII, *Census of Canada, 1941*. Summary statistics appear in the 1943-44 and 1945 Year Books. Figures on the gainfully occupied population of Newfoundland are given in Vol. I of the *Census of Newfoundland, 1945* and are summarized in the 1951 Year Book, pp. 655-656. Information from the 1951 Census on this subject was not available at the time of preparation of this Chapter.

Section 3.—Employment and Unemployment

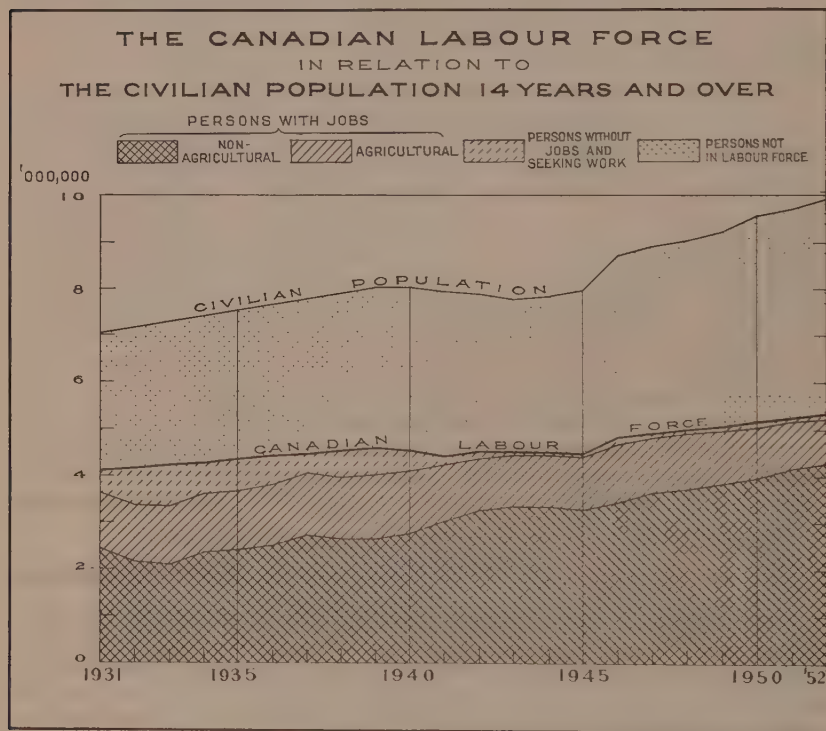
Subsection 1.—The Labour Force*

During World War II it became increasingly apparent that up-to-date information on the size and characteristics of the labour supply was a necessity. Also, the possibility of disturbed economic conditions in the post-war period emphasized the need for a current and periodic analysis of the state of employment in Canada. To meet this need, a labour force survey on a sample basis was conducted in the

* Revised in the Special Surveys Division, Dominion Bureau of Statistics.

autumn of 1945, and quarterly surveys have been carried out since that time. A multi-stage area sampling was used involving the selection of progressively smaller sample areas and ultimately of households. Random methods of choice were used at every stage of selection so that all members of the population had an equal chance of inclusion.

The estimates of the labour force are restricted to the civilian labour force, since net strength of the Armed Forces is obtainable directly from official sources. Inmates of institutions and Indians living on reservations are also excluded because they are not in the competitive labour market. Because of inaccessibility and high cost of enumeration, certain remote areas of the country have been excluded from the sample.



The present sample includes about 30,000 households in over 100 different areas in Canada. These areas include the 28 cities having a population of 30,000 or over, in addition to some of the smaller cities and various rural areas. Once a year, at the mid-summer survey, the sample in the metropolitan areas of cities of 30,000 or over is doubled in order to improve the estimates of interprovincial migration obtained from the sample.

The labour force surveys provide a classification of persons 14 years of age or over on the basis of their activity during a specified week, which is, in each case, the week that precedes the beginning of the survey. Information on the part of the population not in the labour force is also collected. These non-workers are

classified as keeping house, going to school, retired or voluntarily idle, too old or permanently unable to work. A residual category consisting of persons who work without pay for charitable organizations or who, for any other reason, cannot be classified in another group is also shown.

The information gathered on the labour force is divided into two groups: (1) persons with jobs and (2) persons without jobs and seeking work. The estimates of persons with jobs are classified by region, sex, age, hours worked, occupation, industry and occupational status. Special estimates are given for women employed in domestic service and employed women by marital status. Included in the estimate of persons with jobs are those who worked during the survey week, as well as those temporarily absent from their jobs because of illness, vacation, bad weather, labour disputes or temporary layoffs. The estimates of persons without jobs and seeking work are classified by region, sex, age and number of months looking for work.

The estimates obtained from the labour force surveys are all subject to sampling error, which tends to increase as the size of the estimate decreases. Accordingly, the reliability of the smaller estimates is less than that of the larger estimates. Estimates of less than 10,000 persons should not be used without careful reservation.

Data in Table 2 for June 1, 1946 to 1951, are compiled from the results of quarterly labour force surveys conducted in late May or early June of those years. The information for years prior to 1946 is taken from estimates based upon 1931 and 1941 Census data rearranged according to the definitional system used in the labour force surveys, the revised census benchmarks being linked with the June 1946 survey on the basis of monthly and annual employment and unemployment data.

2.—Estimates of the Civilian Labour Force and its Main Components, June 1, 1931-51

Year	Civilian Popu- lation ¹ (14 years of age or over)	Civilian Labour Force (14 years of age or over)						Persons not in the Labour Force (14 years of age or over)	
		Persons With Jobs				Persons Without Jobs and Seeking Work	Total Labour Force ¹		
		Non-Agriculture			Agri- culture				Total (with jobs)
		Paid Workers	Unpaid Workers ²	Total (non-agri- culture)					
	'000	'000	'000	'000	'000	'000	'000	'000	
1931...	7,039	2,006	421	2,427	1,203	3,630	475	4,105	2,934
1932...	7,163	1,828	381	2,209	1,223	3,432	733	4,165	2,998
1933...	7,287	1,698	470	2,168	1,243	3,411	817	4,228	3,059
1934...	7,411	1,910	493	2,403	1,263	3,666	624	4,290	3,121
1935...	7,539	1,920	532	2,452	1,284	3,736	618	4,354	3,185
1936...	7,665	1,972	576	2,548	1,304	3,852	565	4,417	3,248
1937...	7,785	2,085	661	2,746	1,324	4,070	406	4,476	3,309
1938...	7,912	2,053	625	2,678	1,344	4,022	516	4,538	3,374
1939...	8,035	2,056	655	2,711	1,364	4,075	523	4,598	3,437
1940...	8,053	2,173	636	2,809	1,329	4,138	418	4,556	3,497
1941...	7,969	2,538	476	3,014	1,210	4,224	193	4,417	3,552
1942...	7,900	2,770	488	3,258	1,127	4,385	134	4,519	3,381
1943...	7,797	2,906	434	3,340	1,107	4,447	75	4,522	3,275
1944...	7,856	2,950	369	3,319	1,126	4,445	62	4,507	3,349
1945...	7,992	2,914	363	3,277	1,134	4,411	72	4,483	3,509
1946 ³ ...	8,715	2,957	481	3,438	1,261	4,699	125	4,824	3,891
1947...	8,933	3,112	548	3,660	1,163	4,823	91	4,914	4,019
1948...	9,053	3,201	537	3,738	1,177	4,915	81	4,996	4,057
1949...	9,211	3,312	548	3,860	1,110	4,970	101	5,071	4,140
1950 ⁴ ...	9,040	3,240	539	3,779	964	4,743	139	4,882	4,158
1951 ⁴ ...	9,714	3,640	535	4,175	997	5,172	83	5,255	4,459

¹ Exclusive of persons in institutions, remote areas and Indian reserves. ² Employers, 'own-account' and unpaid family workers. ³ Revised data from 1946 to 1951. ⁴ Includes Newfoundland. ⁵ Excludes Manitoba.

Main Characteristics of the Canadian Labour Force, 1931-51.*—The civilian population 14 years of age or over (exclusive of persons in institutions) increased in the period June 1931 to June 1951 by about 2,439,000 persons or at the rate of about 122,000 persons a year. The strength of the Armed Forces rose very considerably from 5,000 in 1931 and 9,000 in mid-1939 to 779,000 at June 1944 but declined to 75,000 by June 1951. Consequently, the civilian non-institutional population, which increased very little from June 1939 to June 1940 actually declined in size until, in mid-1943, it contained almost 240,000 fewer persons than in 1939. During 1944 there was a small increase in the civilian population (59,000) as the rate of increase of the Armed Forces levelled off. In 1945, 1946 and 1947 the civilian population increased markedly as a consequence of the rapid demobilization of the Forces.

In contrast, the civilian labour force maintained its strength notwithstanding large withdrawals to the Forces during the war years (June 1942 labour force being 102,000 greater than at June 1941, and that of June 1945 being 66,000 greater) mainly by recruiting replacements from among those who would normally be outside the labour force. The group classed as "not in the labour force" usually represents a fairly constant percentage of the population, but during the war years this category reached a low point in 1943 (162,000 persons fewer than in 1939), increased by 74,000 between mid-1943 and mid-1944 and then moved sharply upward with the decline in wartime employment (the increase was: June 1944 to June 1945, 160,000; and June 1945 to June 1946, 382,000).

The number of civilian jobs increased considerably during the War as compared with pre-war experience (despite a decline in agricultural employment) reaching a wartime peak of 4,447,000 in June 1943 (422,000 greater than June 1939). After registering a decline to 4,411,000 during the readjustment period represented by June 1945, the number of jobs continued to increase in post-war years to the all-time high, for that month, of 5,069,000 in June 1951.

Subsection 2.—Employment and Unemployment Statistics of the Census

Detailed statistics of earnings, employment and unemployment of the people of Canada as at June 1, 1941, are given in Vol VI, *Census of Canada, 1941*. Figures from the 1951 Census were not available at the time of preparation of this Chapter.

Subsection 3.—Employment and Payrolls as Reported by Employers, 1951†

For many years the Dominion Bureau of Statistics has made monthly surveys of employment in the major non-agricultural industries, exclusive of education, health, domestic and personal service, government administration, etc. The broad industrial divisions covered by the surveys are forestry (chiefly logging), mining, manufacturing, construction, transportation, storage and communications, public

* Newfoundland data have been subtracted from 1950 and 1951 totals: thus all statements made in this analysis are on the basis of the nine other provinces.

† Revised in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics.

utilities, trade, finance, insurance and real estate, and certain services (chiefly hotels, restaurants, laundries and dry-cleaning plants). Early in 1941, the monthly inquiries were extended to cover the current earnings of those in recorded employment. Subsequently, a record of weekly payrolls and average wages and salaries was built up for 1939, 1940 and 1941. Since late in 1944, monthly data have also been collected on man-hours and hourly earnings. Inquiries into the sex distribution of the persons on the payrolls of reporting establishments were undertaken on a monthly basis commencing Feb. 1, 1946, replacing the annual and semi-annual surveys of immediately preceding years. Following the entry of Newfoundland into Confederation, the collection of employment and payrolls data was undertaken in that Province. It has not yet been possible, however, to secure the data necessary to include the Newfoundland figures in the Canada indexes, but separate information concerning that Province has been published since 1949.

For practical reasons associated with costs of collection in time and money, the current inquiries* are limited to firms and branches ordinarily employing 15 or more persons. The restriction results in the inclusion of industrial samples of varying size in the monthly survey, the variation depending upon the organization of the industry in large or in small units; from the equally important geographical aspect, however, much greater uniformity exists in the provincial coverage of total employees and, in all cases, the coverage is large. It is estimated that the more than 23,000 firms co-operating in 1951 employed approximately 83 p.c. of the total wage-earners and salaried employees in the industries surveyed.

From 1951, the monthly records of employment, payrolls and man-hours have been grouped according to the Canadian Standard Industrial Classification, and the earlier employment and payroll indexes have been recalculated on 1939 averages as 100 p.c. The tables in this Subsection incorporate classification changes, and all indexes refer to 1939 = 100.

The employment and payrolls indexes published monthly reflect general economic conditions in the country as a whole and also in specific areas, since workers are taken on staff or released by firms in response to demand for their products. The acceptance by Canada of a share in the responsibility for western defence created a demand^a for strategic materials; the outbreak of hostilities in Korea in 1950 accelerated a program already in progress and that gained momentum during 1951. The volume of employment in the period under review responded to the impact of defence spending and sustained consumer demand in many lines. Although area and industry movements varied in some instances, the general indexes of employment, payrolls and average earnings rose to unprecedented heights. A favourable factor during 1951 was a decline of about 35 p.c. in the working time lost as a result of industrial disputes as compared with 1950.

Employment.—During 1951, the index of employment for the composite of nine industries (1939 = 100) reached a new maximum, averaging 180.2. The Dec. 1 figure of 186.6 was the highest on record. These indexes showed gains of

* The methods used in preparing the current statistics of employment and payrolls and man-hours and hourly earnings are explained in the D.B.S. monthly bulletins on these subjects.

more than 7 p.c. over the average for 1950 (168.0) and about 4 p.c. over the peak figure in that year (Dec. 1, 179.2). The month-to-month movements in the two years 1950-51 were similar, the index dropping slightly from Jan. 1 to Mar. 1, and rising steadily throughout the remainder of the year.

The 1951 index of employment in manufacturing, averaging 190.0, was at a post-war peak, 7 p.c. above the 1950 figure and 8 p.c. above that for 1949. At its wartime maximum in 1943, the index of factory employment was 196.1 declining to 194.6 in the following year; by 1946 it dropped to 160.0. Since then, the general movement has been upward except for an insignificant recession in 1949. Factories turning out durable manufactured goods in the year under review showed an average increase of 11.8 p.c. over 1950, and the gain in employment in non-durable goods was 2.9 p.c. Widespread improvement was indicated within the former category, most classes showing increased staffs. An exception was the heating and cooking apparatus group, in which the index of employment fell by 1.8 p.c. in 1951. There was particularly marked expansion as compared with 1950 in aircraft and parts, shipbuilding and repairing and aluminum products. In the non-durable goods division, the movements were not so uniform. Reduced employment was indicated in tobacco, soft drinks, leather products, woollen and fur goods, and some other classes. Firms in other branches of the non-durable goods group generally showed moderate improvement over 1950.

Employment in construction reached a new high level in 1951, the index rising by 7.6 p.c. The gain took place in the buildings and structures group, which showed an increase of 10.8 p.c. Within that category, the improvement was largely in industrial construction, due to a considerable extent to defence requirements. The trend in the other non-manufacturing industries for which data are available was also generally favourable in 1951, when new all-time peaks were recorded in many groups.

Employment indexes for the major industries are given in Table 3 and for the provinces in Table 4 by months for 1950 and 1951, with annual averages from 1941. Provincially, the greatest increases in industrial employment in 1951 as compared with a year earlier were recorded in Quebec, Alberta and Ontario, amounting to 8.7 p.c., 7.5 p.c., and 7.5 p.c., respectively. In the period since 1939, a particularly marked rise in employment was shown in Alberta; the 1951 index for that Province was 202.6 compared with 191.0 for Ontario, where improvement was next in magnitude. Development of the oil fields contributed materially to the favourable position of Alberta.

Table 5 gives index numbers of employment in eight cities of Canada. In most of these, a continuation of the upward movement shown in earlier years was noted in both 1950 and 1951. In Quebec and Vancouver, however, the indexes had dropped slightly in 1950 from the year before, but recovered in 1951; in the former, a post-war peak was reached in the year under review, while the Vancouver index was exceeded only by that in 1948. A new all-time high level of employment was recorded in 1951 at Toronto, where the index averaged 195.3, 6.4 p.c. above that of 1950, the previous maximum.

Table 6 gives the percentages of women reported by the larger establishments in specified industries at Oct. 1 in the period 1944 to 1951. On the whole, the proportions have declined since 1944, when employment for women reached an all-time high; this was also the case in most industrial divisions for which statistics are available. In the finance, insurance and real estate group, the ratio of women has risen steadily in the three years 1949-51, but in 1951 it was still considerably below the wartime level.

3.—Annual Average Index Numbers of Employment, by Industrial Groups, 1941-51, and Monthly Indexes, 1950 and 1951

(Exclusive of Newfoundland and the Territories)

NOTE.—These indexes are calculated as at the first day of each month, on the base 1939=100.

Year and Month	Forestry (chiefly logging)	Mining	Manufacturing	Construction	Transportation, Storage and Communications	Public Utility Operation	Trade	Finance, Insurance, Real Estate	Services ¹	Industrial Composite
Averages—										
1941.....	144.6	105.3	145.2	110.6	117.2	107.3	110.5	102.5	116.3	128.0
1942.....	151.1	102.0	178.6	113.2	124.8	105.1	110.2	107.5	123.9	145.5
1943.....	138.7	94.4	196.1	111.9	132.9	103.0	109.5	108.1	131.6	153.9
1944.....	165.9	92.1	194.6	83.6	138.3	103.4	115.9	110.5	140.1	153.1
1945.....	190.2	87.5	175.9	86.7	143.9	110.8	123.4	114.0	142.6	147.0
1946.....	206.4	92.5	160.0	112.1	149.4	128.9	135.1	125.7	155.4	146.0
1947.....	237.7	94.2	171.0	138.1	159.6	139.1	146.2	134.9	166.4	158.3
1948.....	220.0	103.4	176.0	153.8	165.7	161.3	156.0	141.4	174.4	165.0
1949.....	158.9	106.4	175.9	161.2	167.3	181.3	162.0	147.4	175.9	165.5
1950.....	160.2	112.2	177.5	165.0	167.2	183.6	167.2	155.3	177.7	168.0
1951.....	220.3	117.7	190.0	177.6	177.6	187.5	174.0	169.8	181.3	180.2
1950—										
Jan. 1.....	179.9	107.4	171.0	143.2	163.1	182.3	176.1	151.0	172.7	163.8
Feb. 1.....	144.3	107.8	170.4	131.4	157.2	178.8	160.6	151.5	171.4	158.3
Mar. 1.....	135.3	108.2	171.5	127.7	156.3	175.8	160.2	152.4	168.4	157.9
Apr. 1.....	119.7	109.0	172.0	134.1	159.5	175.6	161.0	154.0	171.3	159.0
May 1.....	80.1	109.2	172.5	145.5	161.8	177.2	162.4	154.1	174.3	159.7
June 1.....	116.3	111.7	175.3	172.7	167.9	183.7	163.6	154.5	178.9	166.0
July 1.....	147.2	114.8	178.6	184.7	171.5	188.9	165.3	155.6	186.3	170.8
Aug. 1.....	149.4	115.1	179.6	190.8	175.6	193.4	164.6	156.1	188.2	172.5
Sept. 1.....	161.9	115.0	182.5	194.4	171.4	191.7	165.7	155.7	187.9	174.1
Oct. 1.....	193.4	115.6	185.6	189.2	175.1	186.7	170.5	159.5	182.5	177.1
Nov. 1.....	233.7	116.0	185.4	185.8	173.9	185.5	174.2	159.9	176.7	178.1
Dec. 1.....	260.5	116.8	185.3	180.4	173.1	183.3	181.8	159.6	173.4	179.2
1951—										
Jan. 1.....	256.0	115.1	182.4	158.1	168.1	179.8	184.4	159.8	172.9	175.3
Feb. 1.....	248.3	114.9	184.5	145.1	165.0	180.1	169.5	160.8	173.3	172.3
Mar. 1.....	244.1	114.7	186.3	139.7	165.7	178.3	168.1	161.7	172.5	172.3
Apr. 1.....	208.0	114.7	188.8	141.9	166.7	179.4	170.9	167.5	172.9	173.3
May 1.....	167.9	115.0	189.9	163.4	171.5	183.2	171.0	170.8	175.9	175.6
June 1.....	188.6	116.4	192.0	182.7	176.5	190.9	172.8	171.0	180.9	180.3
July 1.....	197.6	119.0	193.9	190.4	183.2	193.8	173.3	172.0	188.8	183.6
Aug. 1.....	180.5	120.0	194.0	199.5	186.4	195.8	170.8	172.6	193.4	184.3
Sept. 1.....	181.8	119.5	194.1	206.7	189.0	195.3	171.0	173.0	193.7	185.4
Oct. 1.....	214.6	120.1	194.2	206.1	186.7	191.8	175.5	173.3	187.9	186.5
Nov. 1.....	262.3	121.4	190.8	203.1	186.4	190.7	176.7	176.4	183.2	186.4
Dec. 1.....	293.4	121.6	189.1	194.3	185.4	190.5	183.6	178.4	180.7	186.6
Percentage distribution ²	4.7	4.0	44.9	9.6	13.7	1.7	13.9	4.3	3.2	100.0

¹ Consists mainly of hotels, restaurants, laundries and dry-cleaning establishments. ² The proportion of employees reported in the industries to the total reported by all employers making returns in Canada at Dec. 1, 1951.

4.—Annual Average Index Numbers of Employment, by Provinces, 1941-51, and Monthly Indexes, 1950 and 1951

NOTE.—These indexes are calculated as at the first day of the month, on the base 1939=100.

Year and Month	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada ¹
Averages—										
1941.....	118.8	134.1	136.0	123.9	134.8	123.5	106.4	118.1	121.7	128.0
1942.....	111.1	153.9	148.7	145.2	150.6	133.4	109.1	127.9	147.4	145.5
1943.....	117.2	159.2	157.4	155.6	155.7	138.6	113.8	134.0	169.5	153.9
1944.....	134.8	156.5	163.0	153.0	154.9	143.0	119.5	139.9	165.9	153.1
1945.....	128.5	151.2	163.3	143.1	150.1	142.3	120.7	137.5	156.8	147.0
1946.....	137.0	142.2	162.4	139.5	150.3	149.3	128.8	148.9	149.9	146.0
1947.....	146.5	137.2	172.7	150.9	163.9	156.0	135.8	158.9	174.1	158.3
1948.....	161.0	148.4	174.2	156.2	171.2	162.0	139.0	168.9	181.6	165.0
1949.....	157.0	149.0	165.6	154.3	173.1	166.7	139.7	180.3	179.3	165.5
1950.....	173.1	142.5	169.9	155.0	177.7	168.0	140.8	188.5	180.7	168.0
1951.....	176.8	149.4	180.5	168.5	191.0	173.2	148.1	202.6	190.3	180.2
1950—										
Jan. 1.....	158.5	137.1	169.8	151.1	173.3	167.7	139.0	181.7	172.9	163.8
Feb. 1.....	150.4	133.1	160.4	146.9	170.1	161.0	126.6	173.9	157.1	158.3
Mar. 1.....	143.8	130.8	157.4	145.5	169.5	159.0	126.2	174.0	163.2	157.9
Apr. 1.....	149.9	132.0	157.5	146.2	169.9	159.0	127.3	175.8	170.1	159.0
May 1.....	152.6	128.5	153.1	146.7	170.3	160.1	130.0	178.1	174.9	159.7
June 1.....	167.7	142.0	165.1	152.5	175.3	162.5	142.2	188.5	182.1	159.0
July 1.....	179.0	147.0	180.2	156.4	179.6	171.1	146.2	195.6	186.2	170.8
Aug. 1.....	187.0	150.2	176.0	158.3	180.0	173.9	149.2	200.7	191.9	172.5
Sept. 1.....	196.9	151.9	176.5	159.4	182.0	173.9	149.9	201.2	194.1	174.1
Oct. 1.....	196.9	152.8	179.9	164.0	185.8	174.8	150.4	197.5	194.6	177.1
Nov. 1.....	198.9	152.0	178.8	166.0	187.3	175.5	152.1	196.7	191.3	178.1
Dec. 1.....	195.9	152.6	184.1	167.0	189.1	177.9	150.9	197.7	189.6	179.2
1951—										
Jan. 1.....	184.2	149.1	187.5	162.3	186.9	171.2	144.4	193.7	180.4	175.3
Feb. 1.....	165.3	142.2	179.3	159.9	185.6	165.5	134.9	186.5	177.0	172.3
Mar. 1.....	160.1	135.7	179.0	161.0	185.7	164.3	133.3	186.7	176.9	172.3
Apr. 1.....	152.0	140.3	177.1	160.3	187.3	165.2	135.3	187.0	181.0	173.3
May 1.....	161.8	140.3	171.7	163.3	188.5	167.5	137.9	192.9	187.2	175.6
June 1.....	178.1	149.4	171.6	167.9	191.9	172.6	149.8	202.5	192.3	180.3
July 1.....	186.9	149.6	174.9	171.0	194.7	177.6	154.6	208.9	197.4	183.6
Aug. 1.....	188.7	155.3	179.9	171.6	193.5	179.7	157.5	218.0	198.1	184.3
Sept. 1.....	192.4	157.8	182.3	173.2	194.1	180.4	157.8	219.0	198.9	185.4
Oct. 1.....	188.6	158.6	183.6	175.3	195.4	178.6	156.9	214.0	201.0	186.5
Nov. 1.....	182.6	158.4	186.2	178.0	193.9	178.4	157.7	211.3	197.9	186.4
Dec. 1.....	181.0	156.2	192.3	178.6	194.7	177.5	156.5	210.9	195.1	186.6
Percentage distribution ²	0.2	3.6	2.8	29.8	42.4	5.2	2.3	4.6	9.1	100.0

¹ Exclusive of Newfoundland and the Territories. ² The proportion of employees reported in the industries to the total reported by all employers making returns in Canada at Dec. 1, 1951.

5.—Annual Average Index Numbers of Employment, by Metropolitan Areas, 1941-51, and Monthly Indexes, 1950 and 1951

NOTE.—These indexes are calculated as at the first day of the month, on the base 1939=100.

Year	Montreal	Quebec	Toronto	Ottawa-Hull	Hamilton	Windsor	Winnipeg	Vancouver
Averages—								
1941.....	124.9	130.6	131.3	135.4	147.6	167.8	124.8	128.7
1942.....	143.0	167.3	153.5	144.5	172.1	207.8	133.7	177.8
1943.....	159.3	202.9	165.5	149.0	172.1	224.6	140.3	212.3
1944.....	159.4	200.4	167.6	148.2	166.9	214.1	146.3	209.8
1945.....	147.5	163.5	157.3	144.7	163.0	178.7	144.2	192.7
1946.....	144.6	127.7	153.0	154.0	153.0	176.0	151.5	172.2
1947.....	153.8	139.4	164.3	159.7	170.4	195.8	157.5	194.2
1948.....	158.5	150.3	171.6	168.6	180.4	200.6	162.9	204.7
1949.....	163.2	149.5	176.4	174.7	186.1	212.4	167.8	200.5
1950.....	165.4	147.5	183.6	180.1	187.5	217.0	168.0	198.6
1951.....	173.9	151.9	195.3	189.3	203.7	228.7	172.2	203.3

5.—Annual Average Index Numbers of Employment, by Metropolitan Areas, 1941-51, and Monthly Indexes, 1950 and 1951—concluded

Year and Month	Montreal	Quebec	Toronto	Ottawa-Hull	Hamilton	Windsor	Winnipeg	Vancouver
1950—								
Jan. 1.....	162.7	142.6	180.9	178.7	185.1	212.4	170.4	195.0
Feb. 1.....	160.7	137.1	178.1	172.0	181.4	210.9	163.4	185.6
Mar. 1.....	160.4	137.7	177.9	168.6	180.8	213.1	161.3	188.6
Apr. 1.....	161.0	138.6	179.5	171.3	181.0	194.7	161.3	192.7
May 1.....	163.0	142.9	180.9	175.4	183.5	193.5	162.3	193.8
June 1.....	164.4	147.7	182.1	180.1	186.3	221.1	160.6	198.5
July 1.....	165.8	151.8	183.9	184.4	190.3	225.2	169.8	201.8
Aug. 1.....	164.8	155.0	182.4	184.8	189.4	228.0	169.5	204.3
Sept. 1.....	166.6	155.5	184.3	185.4	188.0	230.8	170.0	206.6
Oct. 1.....	170.6	154.4	187.8	186.0	191.2	229.1	173.3	206.6
Nov. 1.....	171.6	153.5	191.1	187.0	194.5	221.7	175.3	202.8
Dec. 1.....	172.7	153.2	194.5	187.6	198.2	223.5	179.2	206.4
1951—								
Jan. 1.....	168.8	146.2	194.0	188.7	197.4	231.2	173.3	199.4
Feb. 1.....	167.5	142.6	191.0	183.6	196.2	234.6	168.1	195.9
Mar. 1.....	168.2	142.7	191.1	181.7	196.7	237.9	166.8	197.2
Apr. 1.....	170.9	144.6	194.1	183.5	199.5	240.2	167.9	201.0
May 1.....	173.6	148.1	195.4	186.6	205.9	235.8	168.7	203.7
June 1.....	174.6	152.0	196.2	190.4	208.6	237.3	172.5	204.8
July 1.....	176.3	155.4	197.9	192.8	211.8	235.7	175.3	208.4
Aug. 1.....	174.8	159.1	194.4	192.5	210.5	231.9	174.5	207.4
Sept. 1.....	175.8	159.3	195.5	192.1	206.8	223.7	175.1	207.8
Oct. 1.....	178.0	158.6	197.3	192.4	206.9	211.8	173.9	207.3
Nov. 1.....	178.6	158.2	197.4	194.6	201.5	211.4	174.8	203.9
Dec. 1.....	179.9	156.0	198.9	193.1	202.9	212.3	175.8	203.1
Percentage distribution ¹	14.6	1.5	14.1	1.8	3.2	1.7	3.3	3.9

¹ Proportion of employees reported in metropolitan areas to the total reported by all employers making returns in Canada at Dec. 1, 1951.

6.—Percentages of Women Employed in Main Industrial Groups at Oct. 1, 1941-51

Industrial Group	1944	1945	1946	1947	1948	1949	1950	1951
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Forestry (chiefly logging).....	1.9	1.9	1.8	1.8	1.7	1.8	1.5	1.7
Mining.....	3.3	2.8	2.4	2.1	2.2	2.2	2.3	2.6
Manufacturing ¹	29.1	26.9	25.0	23.7	23.4	24.1	23.6	22.7
Durable goods ²	19.4	14.4	12.3	11.4	10.9	10.9	11.2	10.7
Non-durable goods ²	40.2	37.6	35.1	34.4	34.5	35.1	34.7	34.0
Construction.....	..	..	..	..	..	..	2.2	2.2
Transportation, Storage and Communications.....	12.2	12.6	12.7	12.6	12.5	13.4	14.1	13.8
Public Utility Operation.....	13.0	12.6	10.6	10.6	11.7	12.0	12.3	12.2
Trade.....	49.3	46.8	41.9	40.2	39.0	38.1	37.4	37.6
Finance, Insurance and Real Estate Service.....	53.9	53.3	46.7	47.1	46.9	47.5	48.2	48.9
Service ³	58.2	57.6	54.4	53.6	51.5	51.6	50.7	50.6
Industrial Composite.....	27.1	25.3	23.2	22.0	21.9	22.4	22.3	21.7

¹ In 1939 the proportion of female employees in all manufacturing establishments reporting to the annual Census of Industry was 22 p.c.

² The durable goods group includes wood products, iron and steel products, transportation equipment, non-ferrous metal products, electrical apparatus and supplies, and non-metallic mineral products; the non-durable goods group consists of the remaining manufacturing industries.

³ Mainly hotels, restaurants, laundries and dry-cleaning establishments.

Earnings.—High levels of activity recorded in practically all areas and industries in 1951 were accompanied by substantially greater expenditures in wages and salaries, reflecting not only expanding employment generally, but also widespread and important increases in rates of pay. At 381.3, the index of aggregate weekly payrolls was 18.5 p.c. above the 1950 figure, previously the maximum. Provincially, the greatest percentage gains in the year were those of over 20 p.c. in Quebec, 19 p.c. in Ontario and 17 p.c. in British Columbia. Industrially, there was a particularly marked rise in payrolls in logging, in which the reported disbursements rose by 59 p.c.

in 1951 over 1950. In manufacturing, there was an advance of 18.7 p.c., in durable manufactured goods 24 p.c., and in non-durable manufactured goods, in which employment generally showed a relatively small gain in the 12 months, the increase was over 13 p.c.

The index of average weekly wages and salaries reached an all-time high in 1951 at 211.6. There were widely distributed gains in the per capita figures owing largely, in most industries and areas to upward adjustments in wage and salary rates. In some instances, industrial and occupational changes in the distribution of employees also contributed.

7.—Annual Index Numbers of Employment, Payrolls and Average Earnings in Industrial Establishments, with Average Weekly Wages and Salaries, 1950 and 1951

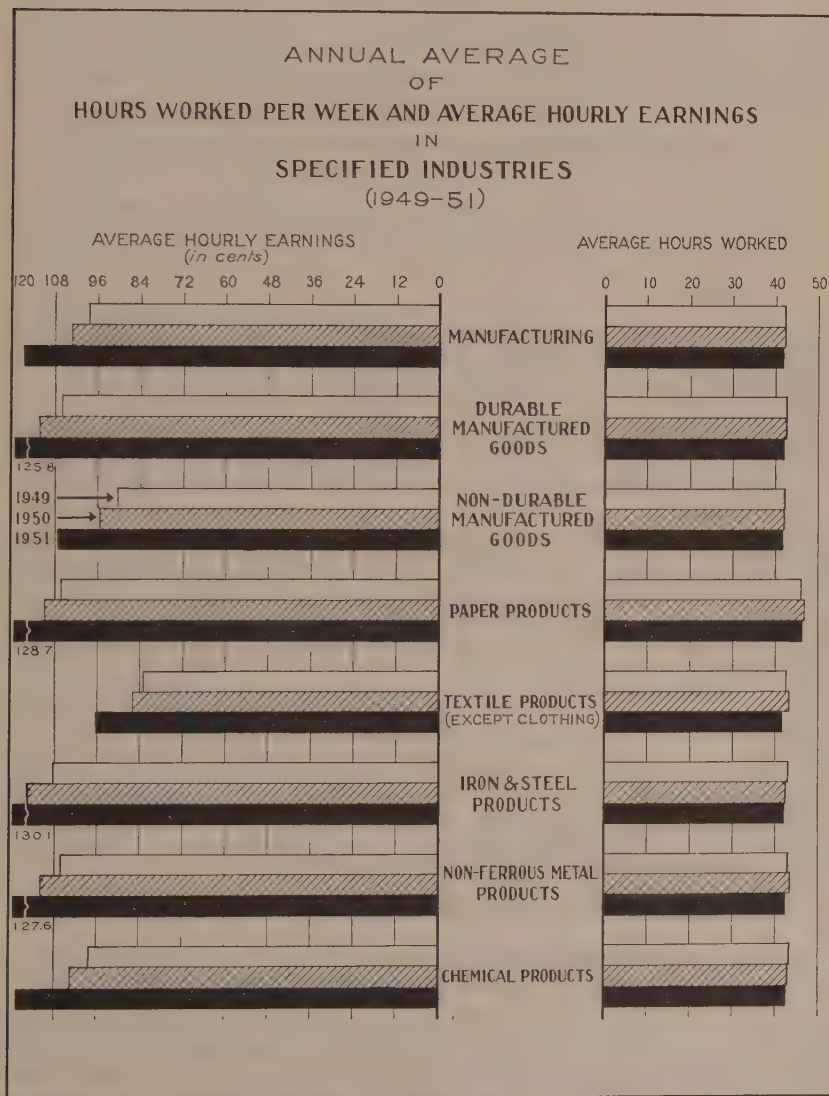
Industry, Province or City	Index Numbers (1939=100)						Average Weekly Wages and Salaries Reported	
	Employment		Aggregate Weekly Payrolls		Average Weekly Earnings		1950	1951
	1950	1951	1950	1951	1950	1951		
Industry							\$	\$
Forestry (chiefly logging).....	160.2	220.3	388.2	616.8	241.9	278.6	42.01	48.40
Mining.....	112.2	117.7	211.2	245.4	188.0	203.5	53.95	59.82
Manufacturing.....	177.5	190.0	360.2	427.6	202.8	224.9	46.21	51.25
Durable goods ¹	211.4	236.3	431.6	534.5	204.0	225.1	49.52	54.89
Non-durable goods ¹	155.4	159.9	308.4	349.8	198.4	218.8	43.28	47.74
Construction.....	165.0	177.6	379.9	459.1	229.8	256.3	43.27	48.36
Transportation, Storage and Communications.....	167.2	177.6	286.5	333.7	171.4	187.4	49.15	53.76
Public Utility Operation.....	183.6	187.5	317.9	355.5	173.2	189.4	51.14	55.93
Trade.....	167.2	174.0	297.4	340.0	177.8	195.6	38.81	42.71
Finance, Insurance and Real Estate Service ²	155.3	169.8	233.7	270.4	148.4	156.3	43.90	46.26
	177.7	181.3	320.1	349.4	180.6	193.6	29.50	31.61
Province								
Prince Edward Island.....	173.1	176.8	301.1	333.5	174.0	189.6	34.44	37.52
Nova Scotia.....	142.5	149.4	261.9	296.4	183.9	198.5	39.40	42.51
New Brunswick.....	169.9	180.5	325.8	383.6	191.8	212.9	38.76	43.02
Quebec.....	155.0	168.5	312.9	375.7	201.7	222.8	42.89	47.37
Ontario.....	177.7	191.0	338.8	403.4	190.5	211.4	46.58	51.69
Manitoba.....	168.0	173.2	286.8	326.0	170.7	188.3	43.84	48.37
Saskatchewan.....	140.8	148.1	249.6	285.6	177.3	193.1	42.86	46.68
Alberta.....	188.5	202.6	338.7	402.1	179.6	198.4	45.61	50.37
British Columbia.....	180.7	190.3	332.0	388.0	183.4	205.5	47.70	52.93
Canada³.....	168.0	180.2	321.8	381.3	191.3	211.6	44.84	49.61
City								
Halifax.....	186.6	203.8	289.9	336.6	155.2	169.1	36.35	39.61
Saint John.....	161.0	172.7	280.4	324.7	173.8	188.2	37.22	40.29
Quebec.....	147.5	151.9	296.7	331.0	200.9	217.4	37.40	40.48
Sherbrooke.....	161.6	172.5	315.9	369.8	195.4	214.3	37.90	41.58
Three Rivers.....	165.8	173.3	350.8	429.4	211.4	238.4	42.87	48.35
Montreal.....	165.4	173.9	315.9	363.3	191.0	209.0	43.68	47.69
Ottawa-Hull.....	180.1	189.3	317.3	368.1	176.1	194.3	40.81	45.01
Toronto.....	183.6	195.3	341.0	402.2	185.6	206.3	46.49	51.68
Hamilton.....	187.5	203.7	379.6	447.1	202.2	223.7	48.91	54.11
St. Catharines.....	248.7	237.3	449.9	581.7	215.3	244.7	52.85	60.07
Brantford.....	204.1	209.1	448.9	513.0	219.9	245.6	45.67	51.01
Kitchener.....	174.1	181.2	351.7	402.7	202.0	222.5	42.84	47.20
London.....	185.8	193.7	341.4	396.2	183.8	204.6	43.48	48.42
Windsor.....	217.0	228.7	427.7	477.5	196.5	209.5	54.60	58.22
Fort William-Port Arthur.....	189.4	211.1	348.2	440.9	183.7	207.9	46.71	52.86
Winnipeg.....	168.0	172.2	283.4	320.2	168.5	186.4	40.94	45.27
Regina.....	162.1	165.7	287.3	320.0	177.1	193.2	39.98	43.62
Saskatoon.....	179.4	188.3	314.5	360.7	175.2	190.9	38.87	42.35
Edmonton.....	232.9	252.1	420.4	505.7	180.3	200.2	42.35	47.03
Calgary.....	194.0	210.1	327.4	391.3	168.7	186.2	43.48	47.99
Vancouver.....	198.6	203.3	362.2	406.8	182.2	199.9	45.68	50.12
Victoria.....	206.4	221.5	378.7	453.1	183.3	204.6	43.93	49.03

¹ The durable goods group includes wood products, iron and steel products, transportation equipment, non-ferrous metal products, electrical apparatus and supplies and non-metallic mineral products; the non-durable goods group includes the remaining manufacturing industries.

² Mainly hotels, restaurants, laundries and dry-cleaning establishments.

³ Exclusive of Newfoundland and the Territories.

Since 1944 a monthly series of statistics on man-hours, hourly earnings and weekly wages in industries where employers keep count of hours actually worked has been prepared by the Dominion Bureau of Statistics. In manufacturing, the proportion of total workers included in the monthly surveys on these subjects is high, at approximately 80 p.c. of all wage-earners in Canada. Table 8, p. 700 summarizes the recent data.



The average hours of work per week in 1951 in most of the industries listed were lower than in 1950 or 1949, owing mainly to continuing reductions in the standard working week and, to a lesser extent, to changes in the levels of business activity.

Mining and construction were the exceptions, showing a slight rise in the three years. Industrial changes in the distribution of the reported wage-earners and their hours within the mining division were largely responsible for the higher averages as compared with 1949, when industrial disputes caused a substantial loss in working time.

In all industries and areas for which statistics are given in Table 8, there have been successive increases in recent years in the averages of hourly earnings and weekly wages. The levels of average earnings in manufacturing generally in the different areas, and their changes from year to year, are affected by the industrial distributions of the reported wage-earners, and by local variations in business activity.

8.—Average Hours and Earnings in Specified Industries and Areas, 1949-51

Industry and Area	Average Hours Worked			Average Hourly Earnings			Average Weekly Wages		
	1949	1950	1951	1949	1950	1951	1949	1950	1951
Industry	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
Mining.....	42.6	43.0	43.1	117.2	121.4	133.4	49.93	52.20	57.50
Metal mining.....	45.3	45.1	44.1	115.9	121.1	134.8	52.50	54.62	59.45
Coal mining.....	37.4	38.1	39.5	128.3	130.1	136.7	47.98	49.57	54.00
Manufacturing.....	42.3	42.3	41.8	98.6	103.6	116.8	41.71	43.82	48.82
Durable goods ¹	42.5	42.5	42.0	106.5	112.0	125.8	45.26	47.60	52.84
Non-durable goods ¹	42.0	42.2	41.7	90.6	95.2	107.2	38.05	40.17	44.70
Construction.....	39.7	39.9	40.3	101.2	105.6	117.6	40.18	42.13	47.39
Buildings and structures.....	40.1	39.6	39.5	107.9	113.3	127.1	43.27	44.87	50.20
Highways, bridges and streets.....	38.8	40.8	41.9	85.6	88.1	95.1	33.21	35.94	39.85
Service.....	42.2	42.5	42.5	63.6	65.8	69.3	26.84	27.97	29.45
Hotels and restaurants.....	43.0	43.5	43.5	62.6	64.5	68.8	26.92	28.06	29.93
Laundries and dry-cleaning plants.....	40.9	40.9	40.9	62.8	65.1	67.3	25.69	26.63	27.53
Province									
Newfoundland.....	..	..	44.0	..	..	112.8	..	..	49.63
Nova Scotia.....	43.4	43.1	42.2	89.0	91.9	100.9	38.63	39.61	42.58
New Brunswick.....	44.5	44.5	43.8	88.2	91.2	103.8	39.25	40.58	45.46
Quebec.....	43.7	44.0	43.5	89.5	92.9	104.5	39.11	40.88	45.46
Ontario.....	41.8	41.9	41.3	103.3	109.4	123.7	43.18	45.84	51.09
Manitoba.....	42.2	41.8	41.4	95.5	99.4	112.5	40.30	41.55	46.58
Saskatchewan.....	41.6	41.4	41.0	100.0	105.1	117.4	41.60	43.51	48.13
Alberta.....	42.1	41.7	41.0	100.1	103.9	116.6	42.14	43.33	47.81
British Columbia.....	37.7	37.8	37.8	118.7	124.4	140.7	44.75	47.02	53.18
Cities									
Montreal.....	42.2	42.3	42.0	94.5	97.9	109.2	39.88	41.41	45.86
Toronto.....	40.7	40.9	40.6	102.1	107.8	122.3	41.55	44.09	49.65
Hamilton.....	41.9	40.7	40.2	111.5	121.1	136.2	46.72	49.29	54.75
Windsor.....	39.7	41.2	39.7	125.3	132.0	143.7	49.74	54.38	57.05
Winnipeg.....	42.0	41.5	41.0	94.9	98.7	111.4	39.86	40.96	45.67
Vancouver.....	37.3	37.2	37.3	116.4	122.3	138.4	43.42	45.50	51.62

¹ The durable goods group includes wood products, iron and steel products, transportation equipment, non-ferrous metal products, electrical apparatus and supplies, and non-metallic mineral products; the non-durable goods group includes the remaining manufacturing industries.

Section 4.—Earnings, Hours of Work and Wage Rates

Subsection 1.—Earnings and Hours of Work of Male and Female Employees in Manufacturing Establishments*

Annual surveys of earnings and hours of work of male and female wage-earners and salaried employees in manufacturing establishments employing 15 or more persons have been conducted by the Dominion Bureau of Statistics since 1946. The surveys relate to the last week of November in 1946 and 1947 and to the last

* Revised in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics. More complete information is published in D.B.S. bulletins, *Earnings and Hours in Manufacturing*.

week of October in subsequent years. In 1950, data were included for most of the large plants in Newfoundland. The distribution of male and female wage-earners by hours worked in the survey week was obtained in 1946-49; the 1950 survey showed the distribution of wage-earners and salaried employees of each sex by amounts earned in the week.

The data for 1949 (Tables 9 and 10) relate to all employees on the payrolls of the larger manufacturing establishments in the reported week, except homeworkers, travelling salesmen, watchmen and charwomen; the 1950 figures include all categories but homeworkers. Proprietors and firm members, pensioners, personnel in separately organized sales offices, and employees absent without pay throughout the survey week are excluded. The reported earnings comprise gross earnings, before deduction for taxes, unemployment insurance, etc., including time, piecework and commission earnings, regularly paid bonuses, overtime pay and payments to persons absent with pay in the survey week. The hours include part-time, full-time and overtime hours worked, and any hours of paid absence in that week.

Tables 9 and 10 show the average hours worked and the average earnings of wage-earners and salaried employees of both sexes, by provinces and industries. The trend in earnings has been consistently upward in the period covered, largely as a result of pay increases and rising cost-of-living bonuses. Other factors influencing pay levels include the type and size of the manufacturing operation, the proportion of women employed, occupational differences, variations in activity resulting from seasonal, market and other conditions, the proportions of short-time, part-time and casual workers, the amounts of overtime work done, and the extent of absenteeism and labour turnover in the week surveyed. There are also variations associated with the location of the plant in areas where general pay levels tend to be above or below average. Provincial variations are closely related to the industrial distribution of the workers in the different areas. Salary levels are also affected by the type and size of establishment, the varying requirements for highly paid executive and professional personnel, the prevalence of head offices, the organization of distributive operations, etc.

Table 11 shows the proportions of women among wage-earners and salaried employees and the relation of their earnings to those of men. Women's wages and salaries are generally lower than men's earnings, not only because of pay differentials and occupational differences, but also because their hours of work are frequently shorter, part-time work and absenteeism are more common than among men, and they tend, on the average, to be younger and less experienced workers.

The distribution of wage-earners by sex and hours worked in the last week in October 1949 is shown in summary form in Table 12. Provincial variations are related to the industrial distribution of workers, to variations in the normal work week, and to seasonal and other differences in amount of part-time, short-time and overtime work. Table 13, giving the distribution of wage-earners and salaried employees by amounts earned in the last week of October 1950, supplies information on the components of the general averages of earnings, indicating the extent to which unusually high or low earnings were factors in the general figures.

9.—Average Hours and Earnings of Male and Female Wage-Earners for the Last Week of October, 1949 and 1950

(As reported by manufacturers usually employing 15 persons or over)

Province or Industry and Year	Average Hours Worked			Average Hourly Earnings			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
Province									
Nova Scotia.....1949	44.8	42.6	44.5	95.7	46.8	88.9	42.87	19.94	39.56
.....1950	45.0	43.7	44.8	95.5	47.8	88.7	42.98	20.89	39.74
New Brunswick.....1949	46.4	41.3	45.4	90.9	57.4	85.1	42.18	23.71	38.64
.....1950	46.3	39.3	45.0	96.0	61.1	90.4	44.45	24.01	40.68
Quebec.....1949	46.3	40.2	44.5	97.6	64.5	89.0	45.19	25.93	39.61
.....1950	46.7	40.6	44.9	103.1	68.1	94.0	48.15	27.65	42.21
Ontario.....1949	43.8	39.4	42.8	111.6	72.2	103.6	48.88	28.45	44.34
.....1950	44.0	39.5	43.0	121.2	77.7	112.7	53.33	30.69	48.46
Manitoba.....1949	44.5	39.7	43.4	102.0	66.1	94.6	45.39	26.24	41.06
.....1950	44.6	40.0	43.6	108.3	68.9	100.3	48.30	27.56	43.73
Saskatchewan.....1949	42.9	39.2	42.4	101.0	71.4	97.5	43.33	27.99	41.34
.....1950	42.8	39.1	42.4	106.5	74.6	103.1	45.58	29.17	43.71
Alberta.....1949	43.9	40.7	43.5	104.8	73.3	100.7	46.01	29.53	43.30
.....1950	43.0	39.7	42.6	109.5	77.1	105.3	47.09	30.61	44.86
British Columbia.....1949	40.5	37.2	40.1	123.0	76.8	118.1	49.82	28.57	47.36
.....1950	40.5	37.8	40.2	131.7	81.6	126.2	53.34	30.84	50.73
Canada¹.....1949	44.4	39.8	43.3	106.6	68.3	98.4	47.33	27.18	42.61
.....1950	44.6	40.0	43.5	114.2	72.5	105.6	50.93	29.00	45.94
Industry									
Meat products.....1949	44.7	40.6	44.0	113.6	85.3	109.0	50.78	34.63	47.96
Canned and preserved fruits and vegetables.....1949	42.9	38.9	42.2	121.6	91.1	116.5	52.17	35.44	49.16
.....1950	46.8	38.3	42.1	81.3	61.8	71.4	38.05	23.67	30.06
Bread and other bakery products.....1949	46.4	37.7	41.6	84.0	62.5	73.3	38.98	23.56	30.49
.....1950	47.4	41.0	46.3	90.5	55.6	85.2	42.90	22.80	39.45
Distilled and malt liquors.....1949	47.0	40.6	45.9	96.0	58.2	90.3	45.12	23.63	41.45
.....1950	43.2	37.7	42.5	108.7	75.4	104.9	46.96	28.43	44.58
Tobacco and tobacco products.....1949	43.0	38.7	42.4	116.6	80.3	111.8	50.14	31.08	47.40
.....1950	45.6	42.6	43.6	102.5	80.8	88.6	46.74	34.42	38.63
Rubber products.....1949	43.0	40.7	41.5	112.4	90.5	98.6	48.33	36.83	40.92
.....1950	42.8	40.9	42.3	111.4	75.3	102.5	47.68	30.80	43.36
Boots and shoes (except rubber).....1949	44.2	41.8	43.6	122.1	81.9	112.0	53.97	34.23	48.83
.....1950	39.4	37.8	38.7	86.8	59.4	74.8	34.20	22.45	28.95
Cotton yarn and broad woven goods.....1949	40.1	38.1	39.2	91.1	62.8	78.6	36.53	23.93	30.81
.....1950	44.0	41.3	43.0	90.1	76.0	84.8	39.64	31.39	36.46
Woollen goods.....1949	44.4	41.6	43.4	95.1	80.4	89.7	42.22	33.45	38.93
.....1950	46.7	41.4	44.4	87.2	67.6	79.2	40.72	27.99	35.16
Rayon, nylon and silk textiles.....1949	47.0	42.2	44.9	93.0	72.4	84.6	43.71	30.55	37.99
.....1950	48.4	45.4	47.6	90.1	69.2	84.3	43.61	31.42	40.13
Men's clothing.....1949	41.8	44.4	46.9	96.5	75.0	90.6	46.13	33.30	42.49
.....1950	40.2	38.1	38.7	105.9	65.5	77.7	42.57	24.96	30.07
Women's clothing.....1949	41.7	39.3	40.0	109.1	67.9	80.7	45.49	26.68	32.28
.....1950	36.9	35.7	36.0	122.4	70.4	81.4	45.17	25.13	29.30
Knit goods.....1949	38.0	36.5	36.8	128.3	72.6	84.5	48.75	26.50	31.10
.....1950	45.5	40.7	42.3	93.9	62.5	73.7	42.72	25.44	31.18
Saw and planing mills.....1949	45.9	41.7	43.1	98.9	66.2	78.0	45.40	27.61	33.62
.....1950	43.9	41.0	43.8	96.9	78.6	96.3	42.54	32.23	42.18
Furniture.....1949	43.9	40.6	43.8	104.9	88.4	104.5	46.05	35.89	45.77
.....1950	44.6	40.3	44.2	88.3	68.6	86.7	39.38	27.65	38.32
Pulp and paper mills.....1949	45.1	41.3	44.7	94.6	72.7	92.7	42.66	30.03	41.44
.....1950	48.4	45.0	48.4	114.7	70.6	114.0	55.51	31.77	55.18
Other paper products.....1949	48.9	42.6	48.8	122.5	75.5	121.7	59.90	32.16	59.39
.....1950	45.8	41.6	44.2	98.3	62.2	84.9	45.02	25.88	37.53
Printing, publishing and allied industries.....1949	45.7	42.0	44.3	106.8	67.2	92.3	48.81	28.22	40.89
.....1950	41.8	38.3	41.0	128.2	67.0	115.1	53.59	25.66	47.19
Agricultural implements.....1949	41.2	37.9	40.4	139.9	70.7	124.5	57.64	26.80	50.30
.....1950	42.8	..	42.2	115.1	..	114.9	48.57	..	48.49
Fabricated and structural steel.....1949	44.5	..	44.5	131.8	..	131.5	56.41	..	56.28
.....1950	43.8	..	44.5	113.5	..	113.3	50.51	..	50.42
Iron castings.....1949	43.7	..	43.7	122.0	..	121.8	53.44	..	53.23
.....1950	44.2	41.6	44.2	112.8	86.9	112.1	49.86	36.15	49.55
.....1950	46.0	44.8	46.0	121.6	87.3	121.0	55.94	39.11	55.66

¹ Exclusive of Newfoundland, Prince Edward Island and the Territories.

**9.—Average Hours and Earnings of Male and Female Wage-Earners for the
Last Week of October, 1949 and 1950—concluded**

Industry and Year	Average Hours Worked			Average Hourly Earnings			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes
Industry—concluded	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
Machinery manufacturing.....1949	44.0	41.8	43.9	106.7	77.0	105.2	46.95	51.59	46.18
.....1950	45.1	41.0	44.9	114.4	87.0	112.0	32.19	35.67	50.69
Primary iron and steel.....1949	43.2	38.9	43.2	122.7	91.5	122.4	53.01	35.69	52.88
.....1950	42.6	39.6	42.6	129.1	98.7	128.8	55.00	39.09	54.87
Sheet metal products.....1949	44.1	41.2	43.7	105.3	79.1	102.1	46.44	32.69	44.62
.....1950	43.7	41.3	43.4	113.3	84.1	110.0	49.73	34.73	47.74
Aircraft and parts.....1949	45.7	41.8	45.6	112.8	83.5	112.2	51.55	34.90	51.16
.....1950	46.6	40.2	46.4	117.9	74.1	116.9	54.94	29.79	54.24
Motor-vehicles.....1949	40.4	44.9	40.4	132.5	98.6	132.1	53.53	44.27	53.37
.....1950	43.8	43.6	43.8	146.0	107.3	145.5	63.95	46.78	63.73
Motor-vehicle parts and accessories.....1949	43.9	39.1	43.2	117.4	89.9	113.8	51.54	35.15	49.16
.....1950	44.4	40.0	43.8	128.6	97.2	124.5	57.10	38.88	54.53
Railroad and rolling-stock equipment.....1949	43.7	..	43.7	115.1	..	115.0	50.30	..	50.26
.....1950	43.0	..	43.0	117.1	..	116.5	50.35	..	50.10
Shipbuilding and repairing.....1949	43.6	..	43.5	111.5	..	111.1	48.61	..	48.33
.....1950	43.8	..	43.8	112.4	..	112.0	49.23	..	49.06
Aluminum products.....1949	44.4	40.6	43.9	104.3	69.5	99.0	46.31	28.22	43.86
.....1950	43.6	41.4	43.3	110.1	73.1	105.7	47.01	35.26	45.77
Brass and copper products.....1949	43.6	40.2	43.3	109.4	81.0	107.2	47.70	32.56	46.42
.....1950	45.0	41.4	44.7	113.7	82.6	111.0	51.17	34.20	49.62
Smelting and refining.....1949	45.1	..	45.1	118.5	..	118.4	53.44	..	53.40
.....1950	44.5	..	44.5	122.5	..	122.4	54.51	..	54.47
Electrical apparatus and supplies.....1949	42.8	40.3	42.1	117.7	87.3	109.5	50.38	35.18	46.10
.....1950	43.3	40.2	42.4	127.1	92.4	117.7	55.03	37.14	49.90
Non-metallic mineral products.....1949	46.4	41.8	46.0	100.1	74.4	98.3	46.45	31.10	45.22
.....1950	46.8	41.6	46.4	107.4	75.3	105.0	50.26	31.32	48.72
Products of petroleum and coal.....1949	41.9	..	41.9	125.5	..	125.4	52.58	..	52.54
.....1950	41.3	..	41.3	135.8	..	135.6	56.09	..	56.00
Chemical products.....1949	45.1	40.8	44.3	105.1	64.5	97.7	47.40	26.34	43.28
.....1950	44.1	40.1	43.4	114.6	70.0	107.2	50.54	28.07	46.52
Miscellaneous manufacturing industries.....1949	44.2	40.7	42.8	93.4	65.5	82.1	41.38	26.66	35.14
.....1950	44.3	40.6	42.8	100.4	71.0	88.8	44.48	28.83	38.01
Durable manufactured goods..1949	43.8	40.8	43.5	109.9	79.3	107.6	48.14	32.35	46.81
.....1950	44.2	40.8	43.9	117.7	84.8	115.2	52.02	34.60	50.57
Non-durable manufactured goods.....1949	45.1	39.6	43.1	102.6	66.1	90.4	46.27	26.18	38.96
.....1950	45.1	39.8	43.2	109.9	69.9	96.8	49.56	27.82	41.82
Averages, Manufacturing Industries.	1949 44.4	39.5	43.3	106.6	68.3	98.4	47.33	27.18	42.61
.....1950	44.6	40.0	43.5	114.2	72.5	105.6	50.93	29.00	45.94

**10.—Average Hours and Weekly Earnings of Male and Female Salaried Employees for
the Last Week of October, 1949 and 1950**

(As reported by manufacturers usually employing 15 persons or over)

Province and Year	Average Hours Worked			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes
Province	No.	No.	No.	\$	\$	\$
Nova Scotia.....1949	40.9	39.6	40.5	59.45	28.29	50.47
.....1950	41.0	40.1	40.8	61.20	29.18	52.55
New Brunswick.....1949	43.8	40.6	42.8	57.64	27.88	48.42
.....1950	43.0	39.6	42.0	61.40	28.71	51.60
Quebec.....1949	41.1	38.8	40.4	64.61	33.05	54.66
.....1950	40.5	38.4	39.8	68.13	34.41	58.10
Ontario.....1949	40.4	38.3	39.7	66.81	32.74	55.32
.....1950	39.8	38.1	39.3	71.40	34.84	59.81
Manitoba.....1949	41.9	39.9	41.3	62.19	30.30	52.98
.....1950	41.3	39.8	40.9	62.42	32.01	54.21
Saskatchewan.....1949	42.7	41.1	42.2	53.23	29.30	45.18
.....1950	42.5	41.3	42.1	58.13	32.34	49.76

10.—Average Hours and Weekly Earnings of Male and Female Salaried Employees for the Last Week of October, 1949 and 1950—continued

Province, Industry and Year	Average Hours Worked			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	\$	\$	\$
Province—concluded						
Alberta.....1949	42.8	40.6	42.2	60.06	30.72	51.80
.....1950	41.7	39.8	41.3	62.62	32.47	55.05
British Columbia.....1949	40.7	39.6	40.4	66.92	33.73	57.91
.....1950	40.2	39.0	39.9	69.77	35.23	60.83
Canada¹.....1949	40.8	38.6	40.1	65.37	32.62	54.85
.....1950	40.2	38.4	39.7	69.35	34.38	55.74
Industry						
Meat products.....1949	42.2	40.5	41.8	62.87	35.49	55.87
.....1950	41.7	40.0	41.4	65.22	36.97	59.19
Canned and preserved fruits and vegetables.....1949	43.5	40.0	42.1	59.21	29.63	47.58
.....1950	41.8	39.8	41.1	62.72	29.53	50.62
Bread and other bakery products.....1949	45.2	38.9	42.7	53.51	29.20	43.62
.....1950	44.3	40.1	42.6	54.50	29.53	44.22
Distilled and malt liquors.....1949	38.6	36.3	38.0	76.84	36.81	66.82
.....1950	37.8	35.9	37.3	77.18	38.42	67.96
Tobacco and tobacco products.....1949	40.5	39.2	40.0	65.26	36.63	54.17
.....1950	38.6	37.9	38.4	67.18	39.48	57.86
Rubber products.....1949	39.7	38.2	39.2	63.53	30.90	53.70
.....1950	40.1	38.5	39.6	67.97	33.76	58.09
Boots and shoes (except rubber).....1949	43.1	39.4	41.9	56.57	29.36	48.00
.....1950	42.3	39.6	41.4	60.26	30.23	50.66
Cotton yarn and broad woven goods.....1949	41.2	39.0	40.5	67.63	31.01	55.33
.....1950	40.4	38.7	39.8	74.04	31.60	59.37
Woollen goods.....1949	43.4	38.8	41.9	66.66	31.54	54.80
.....1950	41.7	38.2	40.5	70.56	33.49	57.50
Rayon, nylon and silk textiles.....1949	41.5	40.6	41.2	62.22	31.03	51.38
.....1950	41.1	39.5	40.6	69.37	33.18	58.15
Men's clothing.....1949	40.7	38.3	39.8	57.36	30.38	47.48
.....1950	39.9	38.6	39.5	59.83	31.17	49.46
Women's clothing.....1949	41.2	38.8	40.1	63.47	36.25	50.72
.....1950	41.2	38.4	39.9	64.86	37.88	52.39
Knit goods.....1949	42.8	39.1	41.1	62.90	30.93	48.05
.....1950	41.4	39.2	40.4	69.69	31.22	52.33
Saw and planing mills.....1949	44.2	40.4	43.3	62.94	31.87	55.85
.....1950	43.3	40.0	42.5	66.25	34.07	58.91
Furniture.....1949	41.9	38.3	40.7	63.54	30.29	52.58
.....1950	41.2	38.3	40.2	66.12	31.78	54.33
Pulp and paper mills.....1949	40.8	38.8	40.4	83.40	36.54	72.72
.....1950	39.9	38.1	39.5	85.11	36.73	74.15
Other paper products.....1949	39.5	38.0	39.0	64.85	33.10	53.26
.....1950	38.9	37.3	38.4	72.47	34.30	59.36
Printing, publishing and allied industries.....1949	39.2	37.8	38.7	57.12	30.30	46.55
.....1950	38.3	38.0	38.2	61.75	32.56	50.71
Agricultural implements.....1949	40.5	38.8	40.0	63.44	31.40	55.56
.....1950	39.7	38.5	39.5	67.25	34.38	59.51
Fabricated and structural steel.....1949	40.9	40.1	40.8	71.03	34.70	64.44
.....1950	41.1	39.9	40.9	78.05	35.31	70.75
Iron castings.....1949	41.2	37.8	40.2	65.09	32.28	55.68
.....1950	40.8	37.6	39.9	67.32	33.77	58.27
Machinery manufacturing.....1949	40.4	38.6	39.8	62.86	31.78	53.69
.....1950	40.3	39.0	39.9	67.00	33.42	57.19
Primary iron and steel.....1949	39.9	38.3	39.5	72.64	33.50	62.96
.....1950	39.0	37.6	38.7	74.58	34.73	65.22
Sheet metal products.....1949	39.4	37.6	38.9	62.70	31.61	53.36
.....1950	39.0	37.7	38.7	66.63	33.95	57.49
Aircraft and parts.....1949	41.5	40.8	41.3	62.44	32.24	55.33
.....1950	40.5	39.5	40.2	67.94	34.90	59.99
Motor-vehicles.....1949	41.5	40.1	41.1	80.39	38.29	68.34
.....1950	42.2	41.1	41.9	88.23	43.16	76.19
Motor-vehicle parts and accessories.....1949	41.4	40.0	40.9	71.48	33.80	59.79
.....1950	41.0	39.5	40.6	75.09	35.71	63.59
Railroad and rolling-stock equipment.....1949	43.9	39.6	43.4	70.44	36.75	66.47
.....1950	44.3	39.6	43.9	68.77	38.42	65.86

¹ Exclusive of Newfoundland, Prince Edward Island and the Territories.

10.—Average Hours and Weekly Earnings of Male and Female Salaried Employees for the Last Week of October, 1949 and 1950—concluded

Industry and Year	Average Hours Worked			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	\$	\$	\$
Industry—concluded						
Shipbuilding and repairing.....1949	42.2	39.7	41.6	64.63	30.71	57.38
.....1950	41.8	36.4	40.8	66.12	31.64	59.38
Aluminum products.....1949	39.8	37.8	39.0	69.45	33.32	54.45
.....1950	37.7	37.1	37.4	78.04	35.14	61.96
Brass and copper products.....1949	40.6	38.1	39.8	64.27	33.62	54.58
.....1950	40.2	37.7	39.4	71.48	34.97	60.11
Smelting and refining.....1949	43.6	41.5	43.3	75.75	36.36	69.76
.....1950	42.2	40.4	41.9	76.23	37.47	70.30
Electrical apparatus and supplies.....1949	39.3	38.3	39.0	64.32	35.58	55.15
.....1950	38.8	38.0	38.6	68.11	35.99	58.61
Non-metallic mineral products.....1949	40.8	37.8	39.9	62.87	31.96	53.94
.....1950	40.3	38.0	39.7	67.41	33.85	58.29
Products of petroleum and coal.....1949	38.6	36.1	38.0	68.49	34.70	61.40
.....1950	37.4	34.1	36.7	72.64	38.52	65.59
Chemical products.....1949	39.2	37.3	38.7	67.30	34.46	54.89
.....1950	38.8	37.5	38.3	71.72	36.05	59.87
Miscellaneous manufacturing industries.....1949	41.1	37.6	39.7	63.44	31.43	50.18
.....1950	41.0	38.4	40.0	66.78	33.78	54.51
Durable manufactured goods.....1949	41.0	38.3	40.4	66.53	33.22	57.15
.....1950	40.4	38.6	39.9	70.48	35.10	60.87
Non-durable manufactured goods.....1949	40.7	38.5	39.9	64.35	32.23	53.00
.....1950	40.0	38.3	39.5	68.29	33.90	56.97
Averages, Manufacturing Industries.....1949	40.8	38.6	40.1	65.37	32.62	54.85
.....1950	40.2	38.4	39.7	69.35	34.38	58.74

11.—Proportions of Women Employees, and Proportions of Women's Earnings to Men's Earnings for the Last Week of October, 1949 and 1950

(As reported by manufacturers usually employing 15 persons or over)

Province and Group	Wage-Earners				Salaried Employees			
	Proportions of Women		Proportions of Women's Weekly Wages to Men's		Proportions of Women		Proportions of Women's Weekly Salaries to Men's	
	1949	1950	1949	1950	1949	1950	1949	1950
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Nova Scotia.....	14.5	14.7	46.5	48.6	28.8	27.0	47.6	47.7
New Brunswick.....	19.2	18.4	56.2	54.0	31.0	30.0	48.4	46.8
Quebec.....	29.0	28.8	57.4	57.4	31.1	29.7	51.3	50.5
Ontario.....	22.0	21.3	58.2	57.5	33.7	31.7	49.0	48.8
Manitoba.....	22.6	22.1	57.8	57.1	28.9	27.0	48.7	51.3
Saskatchewan.....	12.9	11.5	64.6	64.1	33.7	32.4	55.0	55.6
Alberta.....	13.9	13.7	64.8	65.1	28.1	25.1	51.1	51.9
British Columbia.....	11.5	11.6	57.3	57.8	27.2	25.9	50.4	50.5
Totals.....	23.2	22.6	57.4	56.9	32.1	30.4	49.9	49.6
Durable goods manufacturing.....	8.0	8.4	67.2	66.5	28.2	27.1	49.9	49.8
Non-durable goods manufacturing.....	36.3	35.4	56.6	56.1	35.3	32.9	50.1	49.6

12.—Provincial Distribution of Wage-Earners, classified by Sex and Hours Worked in the Last Week of October 1949

(As reported by manufacturers usually employing 15 persons or over)

Sex and Hours Group	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total ¹
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Male.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	14.0	13.7	12.3	13.2	7.9	11.5	10.1	19.7	13.3
40-44 ".....	35.7	23.6	22.9	35.6	50.8	59.5	43.2	64.6	34.7
45-48 ".....	27.3	26.2	32.4	36.4	24.4	20.2	31.9	9.6	31.7
49-54 ".....	13.4	21.6	17.4	9.8	10.0	7.1	11.3	3.9	12.0
55 hours or over.....	9.6	14.9	15.0	5.0	6.9	1.7	3.5	3.2	8.3
Female.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	22.8	29.7	34.1	33.3	28.4	26.8	17.4	38.3	33.2
40-44 ".....	33.3	22.7	31.4	37.3	50.7	62.7	62.4	51.7	35.9
45-48 ".....	23.1	29.0	23.3	22.7	15.0	9.3	17.6	5.4	22.1
49-54 ".....	14.4	7.7	8.3	5.5	5.2	1.2	2.4	3.7	6.7
55 hours or over.....	6.4	10.9	2.9	1.2	0.7	—	0.2	0.9	2.1
Both sexes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	15.3	16.9	18.6	17.6	12.4	13.4	11.0	21.9	17.9
40-44 ".....	35.3	23.3	25.3	36.1	50.7	60.0	45.9	63.0	35.0
45-48 ".....	26.8	26.8	29.8	33.3	22.3	18.8	30.0	8.2	29.5
49-54 ".....	13.5	18.9	14.8	8.9	9.0	6.3	10.1	4.0	10.8
55 hours or over.....	9.1	14.2	11.5	4.1	5.6	1.5	3.0	2.9	6.8

¹ Exclusive of Newfoundland and Prince Edward Island.

13.—Provincial Distribution of Wage-Earners, classified by Sex and Earnings in the Last Week of October 1950

Sex and Earnings Group	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total ¹
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Male Wage-Earners—									
Under \$10.00.....	1	2	1	1	1	2	1	1	1
\$10.00—\$19.99.....	3	5	3	2	2	2	2	2	2
20.00—29.99.....	14	12	8	3	5	5	4	2	5
30.00—39.99.....	22	25	18	11	18	21	16	6	14
40.00—49.99.....	27	19	27	25	29	38	36	23	26
50.00—59.99.....	20	20	23	28	32	21	29	41	28
60.00—69.99.....	8	9	11	17	9	9	8	15	14
70.00—79.99.....	3	5	5	8	3	2	3	6	6
80.00—89.99.....	1	2	2	3	1	—	1	2	2
90.00—99.99.....	1	1	1	1	—	—	—	1	1
100.00 or over.....	—	—	1	1	—	—	—	1	1
Employees reported, No.	17,300	12,249	198,571	334,065	22,217	4,939	13,342	54,808	663,836
Female Wage-Earners—									
Under \$10.00.....	7	11	3	3	3	6	2	3	4
\$10.00—\$19.99.....	43	28	21	11	17	9	9	11	16
20.00—29.99.....	38	32	37	33	46	35	35	32	35
30.00—39.99.....	9	20	27	34	23	32	34	37	30
40.00—49.99.....	3	8	9	15	8	18	19	14	12
50.00—59.99.....	—	1	3	3	2	—	1	3	3
60.00—69.99.....	—	—	—	1	1	—	—	—	—
70.00—79.99.....	—	—	—	—	—	—	—	—	—
80.00—89.99.....	—	—	—	—	—	—	—	—	—
90.00—99.99.....	—	—	—	—	—	—	—	—	—
100.00 or over.....	—	—	—	—	—	—	—	—	—
Employees reported, No.	2,973	2,758	80,221	90,380	6,294	644	2,122	7,221	193,639

¹ Includes Newfoundland and Prince Edward Island.

**13.—Provincial Distribution of Wage-Earners, classified by Sex and Earnings in the
Last Week of October 1950—concluded**

Sex and Earnings Group	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals ¹
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Male Salaried Employees—									
Under \$10.00.....	--	--	--	--	--	--	--	--	--
\$10.00—\$19.99.....	1	1	1	1	1	2	1	1	1
20.00—29.99.....	5	8	6	3	5	6	5	2	5
30.00—39.99.....	12	15	10	7	12	13	9	6	8
40.00—49.99.....	17	16	15	13	18	19	17	13	13
50.00—59.99.....	20	20	18	19	20	23	20	19	19
60.00—69.99.....	19	14	16	18	15	16	18	19	17
70.00—79.99.....	8	9	10	13	12	9	12	13	12
80.00—89.99.....	7	5	7	9	5	4	6	10	8
90.00—99.99.....	4	4	4	5	3	4	3	6	5
100.00 or over.....	7	8	13	13	9	6	8	11	12
Employees reported. No.	2,003	1,431	41,600	72,206	4,384	1,237	2,909	8,238	135,418
Female Salaried Em- ployees—									
Under \$10.00.....	--	1	--	1	--	--	1	1	1
\$10.00—\$19.99.....	7	10	6	3	3	1	3	3	4
20.00—29.99.....	47	49	27	26	42	36	32	23	27
30.00—39.99.....	37	30	39	45	39	49	47	47	43
40.00—49.99.....	7	8	20	20	12	11	13	19	19
50.00—59.99.....	1	2	6	4	3	2	3	5	5
60.00—69.99.....	1	--	2	1	1	1	1	1	1
70.00—79.99.....	--	--	--	--	--	--	--	--	--
80.00—89.99.....	--	--	--	--	--	--	--	--	--
90.00—99.99.....	--	--	--	--	--	--	--	--	--
100.00 or over.....	--	--	--	--	--	--	--	--	--
Employees reported. No.	742	613	17,609	33,526	1,620	594	974	2,878	59,018

¹ Includes Newfoundland and Prince Edward Island.

Subsection 2.—Wage Rates and Hours for Various Classes of Labour*

Statistics of rates of wages and hours of labour have been collected for many years by the Federal Department of Labour and are published monthly in the *Labour Gazette* and in annual reports supplementary to the *Labour Gazette*. The first report was issued in 1921 but the records begin, in many cases, with the year 1901. The index numbers show the general movement of wage rates for the main industrial groups as well as for individual industries, but these cannot be used to compare wage rates in one industry with those in another. The statistics are average straight-time wage rates or average straight-time piece-work earnings and do not include overtime or other premium payments.

Tables 14 and 15 show the index numbers of wage rates by main industrial groups and by industries. From 1930 to 1933 the trend in wage rates was downward but increases have been general each year since that time. During the period 1939-50, the rise in the general average index number amounted to 115.9 p.c.

* For more detailed information, see Department of Labour publication, *Wage Rates and Hours of Labour in Canada*.

14.—Index Numbers of Wage Rates for certain Main Industrial Groups, 1941-50

(1939=100)

NOTE.—Figures back to 1901 may be obtained from the Department of Labour publication, *Wage Rates and Hours of Labour in Canada, 1950*. Figures for 1921-40 are given in the 1947 Year Book, p. 650.

Year	Logging	Coal Mining	Metal Mining	Manufacturing	Construction	Water Transportation	Steam Railways	Electric Railways	Telephones	Laundries	General Average
1941.....	114.0	109.4	112.2	115.2	111.6	113.3	109.4	109.1	106.4	110.5	113.1
1942.....	125.9	113.1	118.7	125.5	118.6	125.8	114.8	115.8	112.0	116.5	122.5
1943.....	143.1	124.8	123.1	136.8	127.7	138.8	125.5	121.2	121.9	127.3	133.7
1944.....	146.1	146.0	125.2	141.4	129.6	142.2	125.5	125.7	122.4	128.9	137.9
1945.....	153.3	146.2	128.2	146.5	131.1	144.6	125.5	126.6	125.6	135.4	141.8
1946.....	167.4	146.7	135.7	161.5	143.9	162.3	142.3	139.5	125.2	147.5	155.2
1947.....	195.1	166.7	157.7	183.3	155.0	183.8	142.3	162.3	132.2	170.5	173.7
1948.....	218.8	192.9	173.1	205.9	176.3	213.5	170.2	175.0	140.4	183.0	195.8
1949.....	216.2	196.1	180.8	217.9	184.2	213.8	170.2	179.0	151.5	195.0	204.6
1950.....	213.9	200.7	192.0	230.7	194.0	236.3	179.2	192.1	158.9	209.0	215.9

15.—Index Numbers of Wage Rates, by Industries, 1946-50

(1939=100)

Industry	1946	1947	1948	1949	1950
Logging.....	167.4	195.1	218.8	216.2	213.9
Logging, Eastern Canada.....	162.8	188.3	212.0	210.1	200.5
Logging, British Columbia coastal.....	184.9	220.8	244.2	239.2	264.2
Mining.....	140.6	161.7	181.9	187.6	195.9
Coal mining.....	146.7	166.7	192.9	196.1	200.7
Metal mining.....	135.7	157.7	173.1	180.8	192.0
Manufacturing.....	161.5	183.3	205.9	217.9	230.7
Primary textile products.....	165.6	190.1	224.2	243.3	256.0
Cotton yarn and broad woven goods.....	161.6	189.0	230.6	248.6	262.0
Woollen and worsted yarn and woven goods.....	183.1	209.8	241.3	255.6	273.0
Hosiery and knit goods.....	162.5	184.3	213.8	230.3	243.6
Rayon, nylon and silk textiles.....	164.7	186.8	218.2	248.4	256.2
Clothing.....	176.2	189.5	205.9	212.0	217.3
Men's and boys' suits and overcoats.....	182.1	203.0	214.8	207.0	216.0
Work clothing.....	160.3	173.0	197.1	205.8	228.7
Women's and misses' coats and suits.....	176.2	186.2	206.3	210.8	203.8
Dresses.....	179.2	178.5	196.9	213.4	213.3
Shirts.....	171.7	196.6	209.4	228.0	230.8
Rubber products.....	167.7	190.1	213.7	217.6	228.8
Pulp and paper.....	148.6	173.8	193.6	194.4	206.1
Pulp.....	162.8	193.5	214.3	216.5	227.2
Newsprint.....	137.3	158.4	174.3	175.6	183.5
Paper, other than newsprint.....	147.0	170.9	191.8	190.5	205.4
Paper boxes and containers.....	151.6	175.8	202.3	223.4	234.8
Printing and publishing.....	127.3	138.9	158.2	173.9	188.1
Daily newspapers.....	125.7	136.6	152.6	164.3	178.6
Job printing.....	129.8	142.4	165.9	188.3	202.3
Lumber and its products.....	178.3	205.2	226.2	238.8	257.6
Sawmills.....	184.8	215.7	236.5	253.0	274.0
Sash and door, and planing mills.....	161.2	180.2	195.9	197.5	216.9
Wooden furniture.....	171.7	192.6	218.8	228.3	239.0
Edible plant products.....	153.0	175.0	194.5	205.4	217.6
Flour mills.....	153.1	178.0	196.5	201.9	214.7
Bread and other bakery products.....	152.6	174.2	191.6	202.5	213.9
Biscuits and crackers.....	159.2	184.1	210.5	233.8	245.0
Confectionery.....	148.7	167.0	189.3	192.5	208.3

15.—Index Numbers of Wage Rates, by Industries, 1946-50—concluded

Industry	1946	1947	1948	1949	1950
Manufacturing—concluded					
Fur products.....	150.7	170.5	195.6	206.6	215.2
Leather and its products.....	167.5	198.5	219.3	228.1	235.4
Leather tanneries.....	181.1	215.7	239.7	246.9	260.6
Boots and shoes.....	164.0	194.2	214.1	223.4	229.0
Slaughtering and meat packing.....	165.4	189.1	217.0	231.3	245.2
Iron and steel products.....	159.6	180.4	200.5	212.3	226.0
Primary iron and steel.....	170.6	189.6	215.3	239.6	255.1
Iron castings and machine shop products.....	161.0	189.6	212.1	224.2	241.0
Machinery, engines, boilers, tanks, etc.....	155.8	177.4	195.8	209.4	244.9
Aircraft and parts.....	154.6	162.9	173.8	181.8	192.9
Steel shipbuilding.....	148.8	163.7	175.7	181.5	185.6
Motor-vehicles.....	140.4	151.1	163.1	165.9	174.3
Motor-vehicle parts and accessories.....	162.3	191.0	215.3	225.1	239.1
Heating and cooking apparatus.....	163.5	192.0	226.6	234.2	251.1
Agricultural implements.....	178.5	207.3	232.0	242.5	268.2
Sheet-metal products.....	161.9	185.0	211.3	220.0	232.1
Tobacco products.....	156.9	186.4	232.2	253.9	281.8
Beverages (malt liquors).....	148.4	160.7	182.9	199.7	210.4
Electric light and power.....	143.5	154.8	169.7	186.4	199.7
Electrical apparatus and supplies.....	169.1	195.5	225.6	236.5	253.0
Construction.....	143.9	155.0	176.3	184.2	194.0
Transportation and Communications.....	143.5	149.3	174.3	175.9	187.3
Transportation.....	145.9	151.6	178.8	179.1	191.0
Water transportation (inland and coastal).....	162.3	183.8	213.5	213.8	236.3
Steam railways.....	142.3	143.3	170.2	170.2	179.2
Electric street-railways.....	139.5	162.3	175.0	179.0	192.1
Communications—telephone.....	125.2	132.2	140.4	151.5	158.9
Service—Laundries.....	147.5	170.5	183.0	195.0	209.0
General Averages.....	155.2	173.7	195.8	204.6	215.9

16.—Average Hourly Wage Rates for Selected Occupations in Manufacturing, by Provinces, 1950

Occupation	Atlantic Provinces ¹	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	\$	\$	\$	\$	\$	\$	\$
Newsprint—							
Machine tender.....	2.44	2.21	2.20	2	2	2	2.41
Finisher.....	1.11	1.11	1.09	2	2	2	1.15
Wood Products—							
Sawyer.....	0.78	0.81	0.97	0.90	0.90	0.99	1.70
Machine hand.....	0.71	0.81	0.92	0.94	0.94	0.94	1.22
Meat Products—							
General butcher.....	2	1.14	1.16	1.28	1.23	1.26	1.30
Motor-truck driver.....	2	1.20	1.16	1.29	1.17	1.22	1.25
Iron and Steel Products—							
Machinist.....	1.12	1.13	1.25	1.11	1.08	1.19	1.47
Moulder.....	1.22	1.17	1.37	1.29	1.02	1.15	1.41
Woolen Yarn and Cloth—							
Spinner, male.....	0.70	0.82	0.91		0.76		
Weaver, female.....	0.61	0.78	0.80		0.66		

¹ Exclusive of Newfoundland.² Insufficient data.

17.—Average Standard or Normal Hours of Labour per Week for Male Employees in selected Industries, by Provinces, 1948-50

Industry and Year	Atlantic Provinces ¹	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
Work clothing.....1948	41.5	45.9	41.4	40.2	2	40.0	40.1
1949	43.5	45.2	41.4	41.2	—	40.0	41.7
1950	43.5	44.4	41.1	41.0	—	40.0	40.0
Newsprint.....1948	48.0	48.0	48.0	—	—	—	44.0
1949	48.0	48.0	48.0	—	—	—	44.0
1950 ²	48.1	48.4	47.9	48.0	—	—	43.4
Wood products.....1948	53.1	53.7	46.4	46.1	46.3	47.5	40.7
1949	51.6	53.4	46.5	46.5	45.7	46.5	40.6
1950	51.9	53.0	46.9	46.0	44.6	46.3	40.7
Meat products.....1948	44.2	45.6	45.1	44.1	44.2	44.0	44.1
1949	44.0	45.8	44.4	44.4	44.0	44.4	44.0
1950	40.5	44.7	42.6	41.6	41.8	41.5	41.4
Iron and its products....1948	47.1	46.8	44.5	45.1	44.1	42.8	40.1
1949	44.8	44.9	43.3	45.3	44.1	41.8	40.1
1950	44.5	45.2	42.4	44.9	43.9	42.4	40.1
Woollen yarn and cloth..1948	49.3	48.5	46.8	45.3			
1949	47.5	47.9	45.7	45.0			
1950	48.5	46.5	46.1	45.2			

¹ Exclusive of Newfoundland.
a whole.

² Insufficient data.

³ Data shown apply to pulp and paper as

18.—Average Hourly Wage Rates for selected Occupations in certain Cities, 1950

Industry and Occupation	Halifax	Montreal	Toronto	Winnipeg	Vancouver
Construction—	\$	\$	\$	\$	\$
Bricklayer and mason.....	1.44	1.60	1.95	1.75	1.88
Carpenter.....	1.23	1.40	1.75	1.50	1.68
Electrician.....	1.33	1.50	1.85	1.50	1.78
Painter.....	1.07	1.30	1.50	1.20	1.50
Plasterer.....	1.35	1.60	2.00	1.75	1.85
Plumber.....	1.30	1.58	1.85	1.65	1.75
Sheet-metal worker.....	1.13	1.40	1.85	1.10	1.80
Labourer.....	0.81	0.85	0.95	0.80	1.20
Manufacturing—					
Unskilled factory labour, male.....	0.83	0.91	0.99	0.88	1.16
Transportation—					
Electric Street-Railway—					
One-man car and bus operator ¹.....	...	1.15	1.24	1.05	1.27
Lineman.....	...	1.10	1.40	1.32	1.68
Shop and barnman.....	...	0.85-1.24	1.08-1.48	0.90-1.16	1.10-1.36
Electrician.....	...	1.23	1.33	1.16	1.36
Trackman and labourer.....	...	0.85-1.01	1.08-1.24	0.79-0.84	1.15
Printing and Publishing—					
Compositor—					
News.....	1.43	1.83	1.97½	1.48	1.80
Job.....	1.08½	1.58	1.63	1.40	1.67
Pressman—					
News.....	1.35	1.78	1.97½	1.47	1.80
Job.....	1.21	1.40	1.59	1.33	1.56
Bookbinder.....	...	1.66	1.67½	1.52	1.81
Bindery girl.....	0.46	0.77	0.84	0.70	0.91

¹ Maximum rates based on length of service. Two-man car operators receive 7 cents less at Montreal and Vancouver and 5 cents less at Toronto and Winnipeg.

19.—Standard or Normal Hours of Labour per Week in certain Cities, 1950

Industry	Halifax	Montreal	Toronto	Winnipeg	Vancouver
	hrs.	hrs.	hrs.	hrs.	hrs.
Construction—					
Trades.....	40	40	40	40	40
Labourer.....	48	40-50	40, 44, 48	48	40
Transportation—					
Electric street-railway.....	...	48-50	40	44-48	46½
Printing and Publishing.....	40	40-44	40	40-46	37½

Wages of Farm Labour.—Compared with the corresponding dates in previous years, farm wage rates showed some levelling-off and decline in Eastern Canada and British Columbia in August 1949. This was in contrast to the general upward climb in evidence during the period 1940 to May 1949. With a few exceptions, this levelling-off and decline was continued in those areas and extended to the Prairie Provinces during January 1950. A reversal of this trend became evident for some of the wage rates in May and August 1950 and a general recovery was under way by January 1951 in all provinces. For the remainder of the year the rates climbed steadily to reach the highest level since the survey was started in 1940. The information is provided by volunteer farm correspondents located throughout Canada.

20.—Average Daily and Monthly Wages of Male Farm Help, as at Jan. 15, May 15 and Aug. 15, 1949-51

NOTE.—Figures for 1940-42 are given in the 1943-44 Year Book, pp. 732-733; for 1943-46 in the 1947 edition, pp. 653-654; and for 1947 and 1948 in the 1951 edition, pp. 703-704.

Province and Year	Jan. 15				May 15				Aug. 15			
	Daily		Monthly		Daily		Monthly		Daily		Monthly	
	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
P.E.I.—												
1949.....					2-90	3-81	57-50	78-12	3-10	4-20	59-00	83-00
1950.....					3-00	3-75	58-12	82-35	3-10	4-10	61-00	86-00
1951.....					3-19	4-12	66-42	90-88	3-40	4-50	69-00	98-00
N.S.—												
1949.....	3-58	4-45	71-24	97-35	3-50	4-50	72-50	105-00	3-80	4-70	72-00	100-00
1950.....	3-50 ¹	4-20 ¹	65-00 ¹	98-00 ¹	3-44	4-18	74-21	104-06	3-70	4-70	77-00	95-00
1951.....	3-80 ¹	4-60 ¹	74-00 ¹	108-00 ¹	3-91	4-75	85-83	105-83	4-40	5-10	85-00	109-00
N.B.—												
1949.....					3-85	5-00	87-22	113-00	3-80	4-90	86-00	118-00
1950.....					3-41	4-33	77-86	112-00	3-90	4-70	85-00	113-00
1951.....					4-26	5-25	103-70	135-43	4-70	5-80	101-00	134-00
Que.—												
1949.....	3-93	4-83	83-18	112-57	3-91	4-83	85-29	114-59	4-00	4-90	85-00	114-00
1950.....	3-30	4-20	71-00	97-00	3-54	4-44	76-50	102-44	3-80	4-80	80-00	109-00
1951.....	4-00	5-00	79-00	114-00	4-22	5-22	89-22	116-02	4-70	5-80	100-00	134-00
Ont.—												
1949.....	4-05	4-98	71-48	99-57	4-11	4-91	73-98	101-09	4-30	5-20	75-00	107-00
1950.....	4-00	4-80	66-00	100-00	4-12	5-13	76-89	107-99	4-60	5-70	81-00	111-00
1951.....	4-30	5-40	77-00	113-00	4-68	5-73	85-34	120-07	5-20	6-40	89-00	124-00

¹ Not published separately; figures given are averages for the three Maritime Provinces.

20.—Average Daily and Monthly Wages of Male Farm Help, as at Jan. 15, May 15 and Aug. 15, 1949-51—concluded

Province and Year	Jan. 15				May 15				Aug. 15			
	Daily		Monthly		Daily		Monthly		Daily		Monthly	
	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Man.—												
1949.....	4.09	5.36	66.12	94.00	4.29	5.63	81.78	108.00	5.40	6.80	91.00	121.00
1950.....	4.00	5.20	64.00	90.00	3.94	5.15	85.59	110.00	4.90	6.20	93.00	123.00
1951.....	3.90	5.20	69.00	102.00	4.79	6.02	96.46	128.82	5.90	7.20	104.00	141.00
Sask.—												
1949.....	4.00	5.00	74.49	105.05	4.18	5.15	88.26	120.58	5.50	6.30	93.00	122.00
1950.....	3.20	4.50	64.00	90.00	4.37	5.32	91.15	119.21	5.50	6.70	96.00	128.00
1951.....	3.90	4.80	70.00	103.00	4.79	5.78	100.69	132.92	6.30	7.40	109.00	141.00
Alta.—												
1949.....	4.07	5.20	76.67	107.31	4.44	5.77	89.29	121.36	5.10	6.00	92.00	122.00
1950.....	3.60	4.60	78.00	102.00	4.27	5.31	91.84	123.11	5.20	6.10	97.00	132.00
1951.....	3.70	4.80	76.00	104.00	4.72	5.95	100.28	133.28	5.70	6.90	110.00	147.00
B.C.—												
1949.....	5.57	5.93	84.50	126.67	5.06	6.44	93.57	127.50	5.20	6.20	86.00	118.00
1950.....	5.00	5.40	77.00	115.00	4.72	6.00	89.78	120.33	5.30	6.20	98.00	135.00
1951.....	6.30	7.60	90.00	141.00	5.67	7.00	105.00	141.67	6.40	7.20	112.00	140.00
Totals—												
1949.....	4.04	4.97	74.87	104.45	4.04	5.06	83.73	113.89	4.30	5.30	85.00	115.00
1950.....	3.60	4.50	69.00	99.00	3.84	4.80	84.64	113.76	4.40	5.40	88.00	120.00
1951.....	4.10	5.10	75.00	110.00	4.42	5.44	94.85	127.00	5.20	6.30	101.00	135.00

Section 5.—Unemployment Insurance

The Unemployment Insurance Act, which came into operation on July 1, 1941, applies to all employed persons with the following exceptions: workers in specified industries or occupations such as agriculture, fishing, Armed Forces, permanent public service of the Federal Government, provincial governments and municipal authorities, private domestic service, private-duty nursing; certain director-officers of corporations; workers on other than hourly, daily or piece rates if earning more than \$4,800 per year and (except by consent of the Unemployment Insurance Commission) employees in a hospital or charitable institution not carried on for gain. All employees paid by the hour, day or on piece rate (including a mileage rate) are insured regardless of amount of earnings, together with all employees who receive \$4,800 or less per annum under weekly, monthly or yearly rates.

Unemployment Insurance Fund.—Employers and employees contribute to the Fund, the total paid by each group being equal. The Federal Government contributes an amount equal normally to one-fifth of the combined employer-employee contributions, reimburses the fund for certain types of supplementary benefit payments and assumes the cost of administration. From July 1, 1941, to Mar. 31, 1951, employers and employees contributed \$773,530,581 to the Fund and the Federal Government added \$156,502,957. Interest and profit on sale of securities amounted to \$77,620,644 and fines of \$76,196 made a total revenue of \$1,007,730,378.

Benefits first became payable on Jan. 27, 1942, and from that date to Mar. 31, 1951, total benefit payments amounted to \$343,150,001, leaving a balance of \$664,580,377 in the Fund. Reserves of the Fund are invested in Government of Canada bonds and, as at Mar. 31, 1951, the par value of bonds held amounted to \$652,847,500.

WEEKLY RATES OF CONTRIBUTION AND BENEFIT UNDER THE UNEMPLOYMENT INSURANCE ACT

Earnings	Weekly Contributions ¹		Value of Weekly Stamp ²	Weekly Benefits ³	
	By Employee	By Employer		Single Person	Person With One or More Dependants
	cts.	cts.	cts.	\$	\$
Less than \$9.00.....	18	18	36	4.20	4.80
\$ 9.00 to \$14.99.....	24	24	48	6.00	7.50
\$15.00 to \$20.99.....	30	30	60	8.10	10.20
\$21.00 to \$26.99.....	36	36	72	10.20	12.90
\$27.00 to \$33.99.....	42	42	84	12.30	15.60
\$34.00 to \$47.99.....	48	48	96	14.40	18.30
\$48.00 or more.....	54	54	108	16.20	21.00

¹ The daily rates of contribution in respect of each class is one-sixth of the weekly rates. ² Unemployment insurance stamps combine both employer and employee contributions. ³ Rates calculated on the average daily contribution for the last 180 days in the two years preceding claim. The daily rate of benefit is one-sixth of the weekly benefit rate.

No benefit is payable during the first eight days of unemployment in a benefit year. After that time, the duration of benefit is related to the employment and contribution history of the employee, the number of days' benefit being equal to one-fifth the number of contribution days during the previous five years, less one-third the number of benefit days in the previous three years. Insurance benefit is paid as a right on fulfilment of the following statutory conditions:—

The payment of not less than 30 weekly (or 180 daily) contributions within two years, while in insured employment; and the payment of at least 60 daily contributions within the immediately preceding 12 months, or 45 daily contributions within the immediately preceding 6 months. (These periods of two years, 12 months and 6 months may be extended under certain circumstances.)

Disqualifications for benefit include: loss of work due to a labour dispute in which the contributor is participating or directly interested; unwillingness to accept suitable employment; being an inmate of any prison or an institution supported out of public funds; refusal to attend a course of instruction or training if directed to do so; residence outside Canada unless otherwise prescribed. Disqualification of a claimant for a period not exceeding six weeks may be made if an employee is discharged by reason of his own misconduct or leaves the employment voluntarily without just cause or refuses suitable employment.

Supplementary benefits at a slightly lower rate are payable to certain classes whose benefits have been exhausted or who are not entitled to ordinary benefit during the period Jan. 1 to Mar. 31 in each year.

Statistics of Unemployment Insurance.*—Benefits under the Unemployment Insurance Act first became payable late in January 1942, but no applications for benefit were received until early in February. Except for unusual periods such as the months following the cessation of hostilities in Europe in the spring of 1945,

* Statistics of unemployment insurance are compiled and published by the Unemployment Insurance Section, Labour and Prices Division, Dominion Bureau of Statistics, from material supplied by the Unemployment Insurance Commission. A more detailed analysis of these data, by province and sex, is available in D.B.S. publication, *Annual Report on Benefit Years Established and Terminated Under the Unemployment Insurance Act*.

monthly totals of claims received have shown a definite seasonal variation, rising in the late autumn and winter and falling again in the spring. Monthly averages of initial and renewal claims filed have been as follows: 1942, 2,244; 1943, 3,055; 1944, 7,575; 1945, 24,699; 1946, 40,722; 1947, 36,904; 1948, 54,091; 1949, 77,821; and 1950, 88,165.

Since September 1943, a record has also been maintained of the number of claimants on the live unemployment register on the last working day in each month. This provides a measure of recorded unemployment among insured persons on one day of each month. Monthly averages of ordinary claimants on the live register at the end of the month have been: 1944, 10,454; 1945, 41,139; 1946, 96,760; 1947, 68,254; 1948, 88,909; 1949, 135,624; and 1950, 165,304.

Monthly statistics on the operation of the Unemployment Insurance Act also provide data on the number of days that claimants on the live unemployment register at the end of each month have been continuously on the register, the number of claimants considered entitled and not entitled to benefit, chief reasons for non-entitlement, number of days benefit paid and amount of benefit paid.

In addition to the monthly material on the operation of the Act, annual tabulations of the persons employed in insurable employment are prepared from returns covering the book exchange at Apr. 1, and annual data are published on benefit years established and benefit years terminated.

The number of persons insured under the Unemployment Insurance Act, shown in Table 21, was assumed to be those working in insurable employment as at Apr. 1, as indicated at that time from returns on those receiving insurance books and contribution cards.

Table 22 presents information on the persons who established benefit years and those benefit years that terminated during the calendar year 1949. A benefit year is established under the Unemployment Insurance Act when an insured person, upon becoming unemployed, submits a claim and proves that at least 180 daily contributions have been made on his behalf during the preceding two years. Because of other provisions of the Act or because he may regain employment before he actually receives benefit, the setting up of a benefit year does not necessarily result in the receipt of benefit payments. When a benefit year is established it means merely that the claimant's right to receive benefit at a certain rate at any time during the succeeding twelve months is determined. Thus, of the 410,820 benefit years which terminated during 1949, 62,289 were paid no benefit.

The benefit year remains in existence either until the authorized benefit rights are exhausted or until 12 months have passed since the date of its establishment, whichever occurs first.

The amount of benefit paid on benefit years terminated, as presented in Table 22, is secured by multiplying each daily rate of benefit by the number of days paid at that rate on the ledger cards representing benefit years upon which benefit was drawn.

Table 24 classifies benefit years terminated by daily rate of benefit authorized. The daily rate of benefit is determined by the amount of the daily average contribution paid on behalf of the claimant during the most recent 180 contribution days and by whether or not he has a dependant within the meaning of the Act.

21.—Persons Insured under the Unemployment Insurance Act, by Industrial Groups and Sex, 1949 and 1950

NOTE.—These figures include only those who exchanged an unemployment insurance book or were issued a book for the first time in April. They, therefore, represent an estimate of the number employed in insurable employment as at Apr. 1.

Industrial Group	1949		1950	
	Males	Females	Males	Females
	No.	No.	No.	No.
Agriculture.....	970	410	1,240	440
Forestry and logging.....	11,540	350	38,600	890
Fishing, hunting and trapping.....	540	10	420	180
Mining, Quarrying and Oil Wells—				
Metal mining.....	40,500	1,200	42,410	920
Fuels.....	27,700	320	27,180	400
Non-metal mining.....	7,190	250	6,920	220
Quarrying, clay and sand pits.....	1,870	30	2,150	30
Prospecting.....	700	20	1,290	160
Totals, Mining, Quarrying and Oil Wells.....	77,960	1,820	79,950	1,730
Manufacturing—				
Foods and beverages.....	83,920	30,450	87,770	35,230
Tobacco and tobacco products.....	4,650	6,270	3,340	4,820
Rubber products.....	12,600	4,800	13,970	5,160
Leather products.....	17,980	12,770	17,180	12,280
Textile products (except clothing).....	42,450	29,200	42,110	26,560
Clothing (textile and fur).....	37,370	75,120	34,070	68,320
Wood products.....	76,750	7,880	78,500	7,480
Paper products.....	56,410	10,180	57,190	11,270
Printing, publishing and allied industries.....	30,680	14,780	32,540	14,970
Iron and steel products.....	138,470	14,880	126,920	14,480
Transportation equipment.....	103,750	8,310	103,690	8,770
Non-ferrous metal products.....	33,670	6,230	28,780	5,430
Electrical apparatus and supplies.....	27,720	11,890	35,420	14,840
Non-metallic mineral products.....	22,100	3,130	22,670	2,750
Products of petroleum and coal.....	9,250	2,240	5,340	950
Chemical products.....	27,860	10,160	27,380	10,920
Miscellaneous manufacturing industries.....	15,610	11,230	15,020	10,560
Totals, Manufacturing.....	741,240	259,520	731,890	254,790
Construction—				
General contractors.....	100,090	2,740	95,660	2,450
Special trade contractors (subcontractors).....	39,110	1,510	42,520	1,850
Totals, Construction.....	139,200	4,250	138,180	4,300
Transportation, Storage and Communications—				
Transportation.....	206,500	11,070	234,590	12,980
Storage.....	8,320	960	8,960	1,250
Communications.....	8,440	15,730	11,770	25,350
Totals, Transportation, Storage and Communication.....	223,260	27,760	255,320	39,580
Public utility operation.....	27,760	3,100	28,540	3,260
Trade—				
Wholesale.....	87,000	27,520	92,970	28,280
Retail.....	180,570	149,310	171,340	131,190
Totals, Trade.....	267,570	176,830	264,310	159,470
Finance, insurance and real estate.....	32,520	50,270	32,260	52,500
Service—				
Community or public.....	10,020	11,800	9,750	12,800
Government.....	71,520	28,720	72,890	26,390
Recreation.....	10,320	5,850	9,990	6,070
Business.....	14,540	13,100	15,600	13,820
Personal.....	59,630	71,030	56,650	67,160
Totals, Service.....	166,030	130,530	164,880	126,240
Unspecified.....	18,490	6,510	9,490	2,250
Unemployed.....	197,100	44,630	180,200	47,640
Totals, All Industries.....	1,904,180	705,990	1,925,280	693,270

22.—Persons Establishing Benefit Years, Benefit Years Terminated, Benefit Days Paid on Benefit Years Terminated and Amount of Benefit Paid on those Benefit Years, classified by Provinces, 1949.

Province	Persons Establishing Benefit Years	Benefit Years Terminated	Benefit Days Paid on Benefit Years Terminated	Amount of Benefit Paid on Benefit Years Terminated ¹
	No.	No.	No.	\$
Newfoundland.....	318	20	1,316	3,272
Prince Edward Island.....	2,923	2,560	197,201	404,219
Nova Scotia.....	31,372	25,065	1,770,920	3,836,254
New Brunswick.....	23,873	17,636	1,246,886	2,701,858
Quebec.....	176,822	125,975	7,979,584	16,917,728
Ontario.....	174,946	118,553	6,001,317	12,711,097
Manitoba.....	25,937	21,720	1,455,298	2,994,081
Saskatchewan.....	14,943	12,742	851,231	1,831,819
Alberta.....	23,984	18,570	839,841	1,836,604
British Columbia.....	80,956	67,979	4,316,505	9,639,592
Totals.....	556,074	410,820	24,660,099	52,876,524

¹ These data are obtained from the daily rate of benefit authorized at the time the benefit year is established and the number of benefit days paid during the benefit year.

23.—Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit Years, classified by Duration of Benefit Paid

Duration of Benefit Paid (days)	Benefit Years Terminated	Benefit Days Paid	Duration of Benefit Paid (days)	Benefit Years Terminated	Benefit Days Paid	Duration of Benefit Paid (days)	Benefit Years Terminated	Benefit Days Paid
No.	No.	No.	No.	No.	No.	No.	No.	No.
No benefit...	62,289	—	105-109.....	6,348	678,776	215-219.....	1,001	217,232
1-4.....	16,593	42,497	110-114.....	5,870	657,175	220-224.....	924	205,012
5-9.....	19,776	143,462	115-119.....	5,264	615,611	225-229.....	893	202,677
10-14.....	15,073	180,471	120-124.....	4,823	588,956	230-234.....	921	213,568
15-19.....	15,272	255,748	125-129.....	4,255	540,402	235-239.....	813	192,594
20-24.....	14,324	313,205	130-134.....	3,672	484,510	240-244.....	770	186,327
25-29.....	13,573	366,237	135-139.....	3,403	465,922	245-249.....	822	203,044
30-34.....	12,893	413,327	140-144.....	3,112	441,810	250-254.....	698	175,837
35-39.....	16,979	629,834	145-149.....	2,779	408,364	255-259.....	681	174,996
40-44.....	14,819	622,253	150-154.....	2,625	399,040	260-264.....	735	192,520
45-49.....	15,053	705,728	155-159.....	2,431	381,755	265-269.....	684	182,716
50-54.....	14,642	760,169	160-164.....	2,120	343,865	270-274.....	629	171,060
55-59.....	13,905	792,067	165-169.....	1,929	321,927	275-279.....	612	169,518
60-64.....	13,536	839,267	170-174.....	1,727	296,020	280-284.....	670	188,961
65-69.....	12,617	846,264	175-179.....	1,626	287,789	285-289.....	614	176,162
70-74.....	11,349	816,922	180-184.....	1,507	274,150	290-294.....	570	166,396
75-79.....	10,853	834,364	185-189.....	1,431	267,626	295-299.....	679	201,717
80-84.....	10,175	833,931	190-194.....	1,312	251,888	300 or over..	1,236	374,593
85-89.....	9,238	803,176	195-199.....	1,174	231,191			
90-94.....	8,577	788,992	200-204.....	1,179	238,083			
95-99.....	7,839	760,712	205-209.....	1,097	227,067			
100-104.....	6,727	685,880	210-214.....	1,077	228,336	Totals.....	410,820	24,660,099

24.—Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit Years, classified by Daily Rate of Benefit Authorized

Daily Rate of Benefit	Benefit Years Terminated	Benefit Days Paid	Daily Rate of Benefit	Benefit Years Terminated	Benefit Days Paid	Daily Rate of Benefit	Benefit Years Terminated	Benefit Days Paid
No.	No.		No.	No.		No.	No.	
Under \$0-60.	20	694	\$1-40-\$1-49	11,182	630,024	\$2-30-\$2-39	5,486	380,844
\$0-60-\$0-69.	56	1,919	\$1-50-\$1-59	11,642	659,923	\$2-40-\$2-49	11,616	746,816
\$0-70-\$0-79.	268	12,502	\$1-60-\$1-69	13,104	769,528	\$2-50-\$2-59	20,128	1,161,108
\$0-80-\$0-89.	627	32,403	\$1-70-\$1-79	23,995	1,547,706	\$2-60-\$2-69	100,880	5,995,599
\$0-90-\$0-99.	868	41,610	\$1-80-\$1-89	16,825	957,809	\$2-70-\$2-79	22,102	1,415,757
\$1-00-\$1-09.	2,247	125,239	\$1-90-\$1-99	20,344	1,136,431	\$2-80-\$2-89	2,746	221,480
\$1-10-\$1-19.	3,278	174,128	\$2-00-\$2-09	82,722	4,735,200	\$2-90-\$2-99	995	83,008
\$1-20-\$1-29.	7,548	459,635	\$2-10-\$2-19	27,635	1,819,650	\$3-00 or over	702	57,428
\$1-30-\$1-39.	15,258	923,438	\$2-20-\$2-29	8,546	570,220			
						Totals...	410,820	24,660,099

25.—Benefit Years Terminated during 1949, Benefit Days Paid on those Benefit Years, and Benefit Years Terminated by Cause, classified by Age of Claimant

Age Group	Benefit Years Terminated	Days Paid on Benefit Years Terminated	Benefit Years Terminated	
			Lapsed	Exhausted
	No.	No.	No.	No.
Under 20 years	21,287	890,152	12,753	8,534
20-24	79,979	4,069,197	63,737	16,242
25-29	66,132	3,561,334	56,163	9,969
30-34	45,621	2,395,914	38,773	6,848
35-39	39,800	2,087,338	33,346	6,454
40-44	33,629	1,858,469	27,549	6,080
45-49	30,010	1,718,696	24,252	5,758
50-54	24,669	1,574,330	19,199	5,470
55-59	20,672	1,440,920	15,456	5,216
60-64	19,182	1,603,694	13,126	6,056
65 years or over	27,649	3,305,402	16,132	11,517
Not given	2,190	154,653	1,396	794
Totals, All Ages	410,820	24,660,099	321,882	88,938

26.—Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit Years, classified by Industries and Age of Claimant

Industrial Group	Benefit Years Terminated			Benefit Days Paid		
	Under 25 Years	25-59 Years	60 Years or Over	Under 25 Years	25-59 Years	60 Years or Over
	No.	No.	No.	No.	No.	No.
Agriculture	549	1,291	164	25,683	77,569	14,204
Forestry and logging	2,605	9,392	1,257	134,008	540,893	91,637
Fishing, hunting and trapping	67	386	52	3,852	26,239	4,332
Mining, Quarrying and Oil Wells—						
Metal mining	830	2,681	367	29,916	119,179	35,986
Fuels	802	5,831	1,211	21,072	136,763	72,264
Non-metal mining	335	957	131	19,312	63,406	12,483
Quarrying, clay and sand pits	194	575	147	10,525	36,683	12,010
Prospecting	9	48	9	376	3,056	554
Totals, Mining, Quarrying and Oil Wells	2,170	10,092	1,865	81,201	359,087	133,297

26.—Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit Years, classified by Industries and Ages of Claimants—concluded

Industrial Group	Benefit Years Terminated			Benefit Days Paid		
	Under 25 Years	25-59 Years	60 Years or Over	Under 25 Years	25-59 Years	60 Years or Over
	No.	No.	No.	No.	No.	No.
Manufacturing—						
Food and beverages.....	7,393	15,620	2,730	359,063	907,620	277,074
Tobacco and tobacco products.....	476	900	129	24,159	56,356	17,264
Rubber products.....	1,372	2,174	152	55,259	91,818	16,912
Leather products.....	2,289	3,800	686	100,967	182,368	61,722
Textile products (except clothing).....	4,151	5,128	729	245,240	311,416	88,922
Clothing (textile and fur).....	4,056	6,250	787	190,739	323,118	82,652
Wood products.....	4,635	13,489	2,980	224,332	722,761	278,554
Paper products.....	2,694	5,558	900	153,438	350,179	140,076
Printing, publishing and allied industries.....	1,325	1,912	346	59,870	115,464	42,939
Iron and steel products.....	4,512	12,750	2,112	189,099	598,546	247,368
Transportation equipment.....	6,364	25,541	3,327	310,227	1,205,367	336,668
Non-ferrous metal products.....	1,507	3,581	300	70,406	139,862	34,667
Electrical apparatus and supplies.....	1,780	3,209	319	72,096	153,854	40,723
Non-metallic mineral products.....	1,229	2,417	413	53,707	134,270	45,028
Products of petroleum and coal.....	187	614	163	6,645	33,126	23,273
Chemical products.....	1,125	2,543	382	56,101	155,684	54,737
Miscellaneous manufacturing industries.....	1,257	2,032	349	59,323	108,596	37,516
Totals, Manufacturing.....	46,352	107,518	16,804	2,230,671	5,590,405	1,826,095
Construction—						
General contractors.....	8,747	37,237	7,504	440,989	2,167,884	614,424
Special trade contractors.....	2,692	7,696	1,051	127,187	405,649	89,703
Totals, Construction.....	11,439	44,933	8,555	568,176	2,573,533	704,127
Transportation, Storage and Communications—						
Transportation.....	8,436	20,766	4,287	395,562	1,143,715	633,143
Storage.....	317	828	174	16,079	51,723	20,772
Communications.....	794	887	75	55,646	75,860	11,285
Totals, Transportation, Storage and Communications.....	9,547	22,481	4,536	466,287	1,271,298	665,200
Public utility operation.....	596	1,725	446	34,566	112,422	56,583
Trade—						
Wholesale.....	3,532	8,728	1,313	168,035	551,207	155,433
Retail.....	12,665	20,535	2,746	646,546	1,337,921	322,167
Totals, Trade.....	16,197	29,263	4,059	814,581	1,889,128	477,600
Finance, Insurance and Real Estate.....	1,426	2,338	724	80,339	177,089	96,759
Service—						
Community or public.....	699	2,495	796	36,140	158,686	80,914
Government.....	2,206	9,666	3,222	131,915	680,053	316,498
Recreation.....	664	1,502	575	33,532	96,081	57,737
Business.....	540	1,654	459	22,524	105,583	45,466
Personal.....	6,038	15,396	3,249	286,832	952,013	332,254
Totals, Service.....	10,147	30,713	8,301	510,943	1,992,426	832,869
Unspecified.....	171	401	68	9,042	26,912	6,393
Totals, All Industries¹.....	101,266	260,533	46,831	4,959,349	14,637,001	4,909,096

¹ The total number of benefit years terminated was actually 410,820 since for 2,190 benefit years the age of claimant was not given; 154,653 benefit days were paid on these 2,190 benefit years, so that the total number of benefit days paid on benefit years terminated was 24,660,099.

27.—Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit Years, classified by Occupations

Occupation Group	Benefit Years Terminated	Benefit Days Paid	Occupation Group	Benefit Years Terminated	Benefit Days Paid
No.	No.		No.	No.	
Managerial.....	3,872	264,185	Fishing, trapping and logging.....	10,336	590,516
Professional.....	3,080	191,887	Fishing and trapping... Logging (including forestry).....	416	28,060
Clerical.....	34,193	2,360,103	Mining.....	9,920	562,456
Transportation.....	30,498	1,741,554	Manufacturing and mechanical.....	10,425	379,912
Communications.....	2,797	221,884	Electrical light and power production and stationary enginem.....	86,652	4,628,416
Commercial.....	25,716	1,615,492	Construction.....	7,674	490,678
Financial.....	230	12,444	Labourers.....	44,549	2,563,824
Service (other than professional).....	38,076	2,665,722	Unspecified.....	110,323	6,784,376
Personal (other than domestic).....	18,698	1,250,071		630	41,965
Domestic.....	12,915	834,012	Totals, All Occupations	410,820	24,660,099
Protective.....	5,643	531,396			
Other.....	820	50,243			
Agricultural.....	1,769	107,141			

Employment Service.—The Unemployment Insurance Commission operates a free employment service under authority of the Unemployment Insurance Act, 1940. The public employment offices, which had functioned under a joint federal-provincial arrangement for more than two decades, were taken over on Aug. 1, 1941, and added to by the Commission in all provinces, except Quebec. The Commission also established offices in Quebec and the provincial government thereupon reduced the number of its own offices.

28.—Applications for Employment, Positions Offered and Placements Effectuated by Employment Offices, 1941-50, and by Provinces, 1949 and 1950

NOTE.—Figures by provinces from 1920 to 1948 are given in the corresponding table of previous Year Books, commencing with the 1926 edition. Totals for 1920-37 are given in the 1938 edition, p. 766; for 1938 in the 1939 edition, p. 802; and for 1939 and 1940 in the 1951 edition, p. 686.

Year and Province	Applications Registered		Vacancies Notified		Placements Effectuated	
	Males	Females	Males	Females	Males	Females
	No.	No.	No.	No.	No.	No.
1941.....	568,695	262,767	344,796	206,908	331,997	175,766
1942.....	1,044,610	499,519	949,909	431,933	597,161	298,460
1943.....	1,681,411	1,008,211	2,002,153	1,034,447	1,239,900	704,126
1944.....	1,583,010	902,273	1,779,224	949,547	1,101,854	638,063
1945.....	1,855,036	661,948	1,733,362	687,886	1,095,641	397,940
1946.....	1,464,533	494,164	1,335,200	567,331	624,052	235,360
1947.....	1,189,646	439,577	1,060,134	476,043	549,376	220,473
1948.....	1,197,295	459,332	794,207	391,385	497,916	214,424
1949.....	1,295,690	494,956	652,853	373,897	464,363	219,816
1950.....	1,500,763	575,813	800,611	363,711	559,882	230,920
Newfoundland.....	1949 24,794	1,296	1,143	315	864	112
1950 36,862	1,944	3,107	388	1,604	169	
Prince Edward Island.....	1949 6,084	2,695	3,634	1,885	2,834	1,254
1950 8,492	3,337	4,868	2,262	4,283	1,678	
Nova Scotia.....	1949 57,607	17,072	16,842	10,708	13,507	7,246
1950 62,665	19,483	19,408	10,942	16,548	7,535	
New Brunswick.....	1949 52,749	13,923	16,940	7,614	13,979	5,015
1950 68,647	17,611	24,632	8,118	19,094	5,821	
Quebec.....	1949 324,982	111,151	116,318	80,815	76,735	41,629
1950 393,871	139,535	164,240	82,075	104,533	46,905	
Ontario.....	1949 438,455	181,409	286,793	159,860	199,679	91,851
1950 488,571	205,200	351,171	151,514	240,540	96,758	
Manitoba.....	1949 75,724	41,601	44,293	31,585	31,697	21,424
1950 90,234	47,853	49,671	29,335	35,806	20,473	
Saskatchewan.....	1949 49,320	22,007	31,127	16,072	22,226	10,133
1950 55,621	23,732	33,915	14,679	25,262	9,720	
Alberta.....	1949 83,997	35,748	60,600	28,300	47,074	18,341
1950 97,443	40,061	66,436	28,374	52,524	18,593	
British Columbia.....	1949 181,978	68,054	75,363	36,683	55,768	22,811
1950 198,857	77,057	83,163	36,024	59,988	23,268	

Section 6.—Vocational Training*

The Federal Department of Labour, in co-operation with the provincial governments has, since 1949, carried on the following types of training: (1) youth training; (2) assistance to students; (3) apprenticeship; (4) training of unemployed workers; (5) assistance to the provinces for vocational schools; (6) training of military personnel; and (7) training of discharged members of the Forces.

The Vocational Training Advisory Council, appointed under the authority of the Vocational Training Co-ordination Act, 1942, continued to advise the Minister of Labour on the general aspects of training plans. Two meetings were held during the year. The Council is representative of employers, organized labour, vocational education and of veterans' and women's organizations.

29.—Federal Government Allotments for Vocational Training for the Year Ended Mar. 31, 1951, and Claims Paid¹ to Apr. 30, 1951

Province	Youth Training		Training of Discharged Members of the Forces		Apprentice Training	
	Allotment	Claims Paid	Allotment	Claims Paid	Allotment	Claims Paid
	\$	\$	\$	\$	\$	\$
Newfoundland.....	20,000	6,375	—	—	—	—
Prince Edward Island.....	8,000	7,530	—	—	—	—
Nova Scotia.....	24,000	18,454	2,500	1,399	49,000	33,314
New Brunswick.....	38,000	37,607	2,500	1,793	43,000	34,857
Quebec.....	122,000	119,621	13,000	4,995	—	—
Ontario.....	60,000	60,000	14,000	—	166,000	152,195
Manitoba.....	18,500	13,018	3,000	1,133	41,000	40,022
Saskatchewan.....	35,500	35,355	3,000	876	30,000	30,382
Alberta.....	30,000	24,841	5,000	2,133	114,000	114,423
British Columbia.....	48,000	45,270	2,000	1,776	30,000	22,441
Totals.....	404,000	368,071	45,000	14,105	473,000	427,634

Province	Training of Unemployed Workers		Training of Military Personnel	
	Allotment	Claims Paid	Allotment	Claims Paid
	\$	\$	\$	\$
Newfoundland.....	—	—	—	—
Prince Edward Island.....	—	—	—	—
Nova Scotia.....	125,000	113,376	—	—
New Brunswick.....	36,000	31,337	16,000	14,253
Quebec.....	55,000	8,354	15,150	15,147
Ontario.....	—	—	1,200	1,085
Manitoba.....	30,000	19,697	7,000	6,399
Saskatchewan.....	27,000	25,910	20,500	19,180
Alberta.....	62,000	50,774	—	—
British Columbia.....	13,000	6,899	—	—
Totals.....	348,000	256,347	59,850	56,064

¹ Claims paid include commitments from previous years.

Youth Training.—This phase of the training program consists for the most part of various general and specialized courses for rural young people in agriculture, home crafts and handicrafts, and other related subjects.

* More detailed information is given in the Department of Labour publication, *Canadian Vocational Training Annual Report, 1960-51*.

Assistance to Students.—Under the Youth Training Division of the Vocational Training Agreement with each province, assistance may be provided for nurses-in-training at hospitals and for university students in courses leading to a degree, who have good academic standing but who, without financial assistance, cannot continue training. At the discretion of the provincial authorities, assistance may be given in the form of a grant or loan, or a combination of the two.

The value of Federal Government assistance for such purposes may be assessed from the following approximate amounts paid to the provinces during the year ended Mar. 31, 1951:—

<u>Province</u>	<u>Amount</u>	<u>Province</u>	<u>Amount</u>
	\$		\$
Newfoundland.....	6,375	Ontario.....	60,000
Prince Edward Island.....	4,750	Manitoba.....	5,419
Nova Scotia.....	9,728	Saskatchewan.....	19,938
New Brunswick.....	13,856	Alberta.....	14,356
Quebec.....	74,000	British Columbia.....	25,363

During the year 1950-51, Federal Government expenditure for such assistance amounted to \$137,000 in the form of grants and \$97,000 in the form of loans. Financial help was given to 429 nurses-in-training and 2,162 students at universities. Included in the total number of university students were 502 taking courses in medicine, 72 in dentistry, 358 in engineering, 59 in agriculture and 704 in arts and science. Total federal payments in the past 12 years, amounting to \$2,083,820, have assisted 23,291 students.

Apprenticeship Training.—Apprenticeship agreements are in effect with all provinces except Newfoundland, Prince Edward Island and Quebec. Of the trades designated under the provincial Acts, emphasis is being given to the building and construction trades. In some provinces, certain categories of apprentices are given full-time training of a practical as well as a technical nature for a period of one to three months each year. For other categories, part-time training is given either in afternoon or evening classes for about seven months of the year. Provision is made with employers for adequate supervision of apprentices working on the job by the appointment of instructor-supervisors who instruct full-time classes for six to eight months and supervise for the remaining part of the year. Use is also made of trade advisory committees. Costs are shared equally by the province concerned and the Federal Government. The total number of apprentices registered was 10,850 in the seven provinces having agreements with the Federal Government on Mar. 31, 1951.

Training of Unemployed Persons.—The Canadian Vocational Training and Co-ordination Act provided for the training of unemployed persons in receipt of unemployment insurance benefits. An amendment passed in 1948 extended the provisions to include those not in receipt of unemployment insurance benefits. The schedule covering the training of unemployed persons was accepted by all provinces, but training has not been carried out in Newfoundland, Prince Edward Island, Quebec or Ontario, the need for it not having arisen. Approved costs are shared equally by the province concerned and the Federal Government, the province recommending to the Federal Minister of Labour the scale of training allowances that should be paid.

In the year ended Mar. 31, 1951, approximately 150,801 days' training was given to 1,505 individuals, nearly all of whom were in Nova Scotia, New Brunswick, Manitoba, Saskatchewan and Alberta. At the end of that year, 752 were under training. The largest enrolment was in classes for nurses' aides. No training under this schedule was given for the designated apprentice trades.

Assistance for Vocational Schools.—A ten-year agreement for vocational school assistance signed in 1945 by nine provinces continued in operation and, in 1950, an agreement was made with Newfoundland. The following payments are made by the Federal Government:—

- (1) An annual grant of \$10,000 to each province;
- (2) an annual allotment of \$1,965,800 distributed among the ten provinces in accordance with the number of young persons in each province in the age-group 15-19 years;
- (3) a special allotment of \$10,292,250 to be used for capital expenditure for building and equipment and to be distributed among the provinces on the same basis as the annual allotment. Allotments provided for Newfoundland amount to \$65,800 for annual operation and \$292,250 for capital expenditure.

All federal allotments, except the annual grant under item (1), must be matched by an expenditure of equal amount by the provincial government concerned.

The assistance given by this agreement has resulted in marked expansion of vocational training across the country. Federal approval has been given to 120 vocational building projects, consisting of new schools or vocational additions to existing schools. Of these, 94 were completed by Mar. 31, 1951, and 10 were under construction. Provision has been made for young people in rural areas of facilities for training in homemaking and related subjects, vocational agriculture and farm mechanics. Table 30 gives the amount of the federal annual and capital allotment to each province, together with the amount of claims paid during the year ended Mar. 31, 1951. Since the beginning of the agreement, total federal payments under the annual allotment have amounted to approximately \$10,482,500 and capital payments for buildings and equipment to about \$7,232,500.

**30.—Federal Government Assistance to Provinces for Vocational Schools,
Year Ended Mar. 31, 1951**

Province	Annual Allotment		Capital Allotment (Building and Equipment)	
	Allotment	Claims Paid	Allotment	Claims Paid
	\$	\$	\$	\$
Newfoundland.....	65,800	65,708	292,250	—
Prince Edward Island.....	25,700	35,110	82,000	9,890
Nova Scotia.....	106,400	105,447	504,300	154,323
New Brunswick.....	92,700	92,700	433,000	17,897
Quebec.....	609,400	544,346	3,139,400	169,713
Ontario.....	589,000	589,000	3,031,500	369,675
Manitoba.....	135,300	204,508	656,000	89,061
Saskatchewan.....	173,900	173,564	858,200	201,432
Alberta.....	143,800	143,800	700,200	136,530
British Columbia.....	123,800	128,708	595,400	8,342
Totals.....	2,065,800	2,082,891	10,292,250	1,154,863

Training of Military Personnel.—Provision is made for the training of service tradesmen in such categories as might be requested by the Department of National Defence, and for whom the provincial governments have the necessary training facilities. Training during 1950-51 was on a comparatively small scale, with an enrolment of 439 trainees in the Provinces of New Brunswick, Quebec, Ontario, Manitoba and Saskatchewan. The greater part of the training was given to driver-mechanics, motor-vehicle mechanics and electrical mechanics for the Army. The cost of this type of training is paid solely by the Federal Government.

Training of Discharged Members of the Forces.—As might be expected, each year now shows a marked decrease in the numbers of veterans receiving training. New enrolments in 1950-51 were composed of pensioners or individuals whose training was previously delayed. Only 256 veterans received training during the year, of whom 17 were still under training on Mar. 31, 1951. Since the beginning of such rehabilitation training, the total enrolment has amounted to 134,978 trainees. Costs were borne solely by the Federal Government and amounted to \$25,814,000.

Section 7.—Industrial Accidents and Workmen's Compensation

Subsection 1.—Fatal Industrial Accidents

Statistics of fatal industrial accidents have been compiled by the Federal Department of Labour since 1903. The data are now obtained from provincial Workmen's Compensation Boards, the Board of Transport Commissioners and other government authorities, departmental correspondents and from press reports.

31.—Fatal Industrial Accidents, by Industries, 1948-51

(Includes Newfoundland since Apr. 1, 1949)

Industry	Numbers				Percentages of Total			
	1948	1949	1950	1951 ^a	1948	1949	1950	1951 ^a
Agriculture.....	94	118	60	99	6.8	8.5	4.7	7.0
Logging.....	171	145	160	181	12.3	10.5	12.5	12.9
Fishing and trapping.....	30	33	42	21	2.2	2.4	3.3	1.5
Mining, non-ferrous smelting and quarrying.....	194	203	173	188	14.0	14.7	13.6	13.4
Manufacturing.....	268	250	247	231	19.3	18.1	19.3	16.5
Construction.....	182	152	160	215	13.1	11.0	12.5	15.3
Electric light and power.....	45	42	62	31	3.2	3.0	4.9	2.2
Transportation and public utilities..	248	257	199	242	17.9	18.5	15.6	17.2
Trade.....	45	44	54	53	3.3	3.2	4.2	3.8
Finance.....	3	2	—	5	0.2	0.1	—	0.4
Service.....	106	133	120	137	7.6	9.6	9.4	9.8
Unclassified.....	1	6	—	—	0.1	0.4	—	—
Totals.....	1,387	1,385	1,277	1,403	100.0	100.0	100.0	100.0

Causes of Fatal Accidents.—Preliminary figures indicate that, during 1951, 513 fatal accidents to gainfully employed persons were caused by moving trains, vehicles, etc. Falling objects resulted in 203 fatalities and falls of persons in 164. Fatalities resulting from causes in other classifications were: dangerous substances, 157; striking against or being struck by objects, 40; handling of objects, 22; hoisting apparatus, 25; working machines, 20; prime movers, 15; animals, 12; and tools, 2.

Included in the category "other causes" were 230 fatalities, of these, 153 were due to industrial disease, strain, etc. The number of accidents fatal and non-fatal, dealt with by the provincial Workmen's Compensation Boards, are shown in Subsection 2.

Subsection 2.—Workmen's Compensation*

In all provinces legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment, or by a specified industrial disease, except where the workman is disabled for less than a stated number of days. The Acts of all provinces provide for a compulsory system of collective liability on the part of employers. To ensure payment of compensation, each provincial Act provides for an accident fund, administered by the province, to which employers are required to contribute at a rate, determined by the Workmen's Compensation Board, in accordance with the hazards of the industry. A workman to whom these provisions apply has no right of action against his employer for injury from an accident during employment. In Ontario and Quebec, public authorities, railway and shipping companies, and telephone and telegraph companies are individually liable for compensation as determined by the Board, and pay a proportion of the expenses of administration. A federal Act provides for compensation for accidents to Federal Government employees according to the conditions laid down by the Act of the province in which the accident occurs. Seamen who are not under a provincial Workmen's Compensation Act are entitled to compensation under the Merchant Seamen Compensation Act, 1946.

Free medical aid is given, in all provinces, to workmen during disability. Compensation is payable in all provinces for anthrax and for poisoning from arsenic, lead, mercury and phosphorus, and silicosis is compensated under certain conditions. Other diseases compensated vary according to the industries of the provinces.

Scope of the Workmen's Compensation Acts.—The Acts vary in scope but, in general, they cover construction, mining, manufacturing, lumbering, fishing, transportation and communications and the operation of public utilities. Undertakings in which not more than a stated number of workmen are usually employed may be excluded, except in Alberta and British Columbia.

Benefits.—Under each Act, a fixed period must elapse between the date of the accident and the date when compensation begins but, in all cases, medical aid is given from the date of the accident. This waiting period varies from one to seven days and in all provinces compensation is paid for the waiting period if disability continues beyond it, except that in Saskatchewan and Alberta, where the waiting period is only one day, compensation is payable from and including the day after the accident. Compensation in fatal cases is paid as follows:—

Burial expenses: \$250 in British Columbia, \$200 in Newfoundland, Nova Scotia, New Brunswick, Ontario and Alberta, \$175 in Quebec and Saskatchewan, and \$150 in Prince Edward Island and Manitoba. In some provinces costs of transporting the body are also allowed.

To a widow or invalid widower (or to a foster mother as long as the children are under the age limit): a monthly payment of \$75 in British Columbia, \$60 in Saskatchewan, \$50 in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, Manitoba and Alberta, and of \$45 in Quebec. In addition, a lump sum of \$200 is paid in Ontario and of \$100 in all other provinces.

* More detailed information is given in the Department of Labour publication, *Workmen's Compensation in Canada, A Comparison of Provincial Laws*.

For each child in the care of a parent or foster mother receiving compensation: a monthly payment of \$25 in Saskatchewan and Alberta, \$20 in British Columbia, \$15 in Nova Scotia, \$12.50 in Prince Edward Island, \$12 in Newfoundland, New Brunswick, Ontario and Manitoba, and \$10 in Quebec.

For each orphan child: \$30 a month in Saskatchewan and British Columbia, \$25 in Prince Edward Island, Nova Scotia, New Brunswick and Alberta, \$20 in Newfoundland, Ontario and Manitoba, and \$15 in Quebec, with a maximum of \$100 per month to any one family in Prince Edward Island and Nova Scotia. In Alberta, a further amount, not exceeding \$10 a month, may be given at the discretion of the Board.

Except in the case of invalids, payments to children are not continued beyond the age of 16 years in seven provinces. In Quebec, the age limit is 18 years and in New Brunswick and British Columbia compensation is paid to the age of 18 years, if the child is regularly attending school. In Newfoundland, Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan and Alberta, the Board has discretion to pay compensation to the age of 18 years if it is considered desirable to continue a child's education. In New Brunswick, Ontario, Manitoba and British Columbia, payments to invalid children are continued until recovery, while the other provinces make payments only for the length of time the Board considers that the workman would have contributed to their support.

Where the only dependants are persons other than consort or children, all the Acts provide that compensation is to be a reasonable sum proportionate to the pecuniary loss but the total monthly sum to be paid to all such dependants is limited to \$100 in Ontario, \$85 in Alberta, \$75 in British Columbia, \$60 in Manitoba and \$45 in Prince Edward Island and Nova Scotia. In British Columbia, if there are parents as well as a widow or invalid widower or orphan children, the maximum payable to a parent or parents is \$75 a month. In all provinces, compensation to dependants, other than consort or children, is continued only for such time as the Board considers that the workman would have contributed to their support.

Except in Alberta and British Columbia, each Act places a maximum on the total amount of benefits payable to all dependants in case of death of the workman. In Newfoundland, Nova Scotia, New Brunswick and Manitoba, the maximum is two-thirds of the workman's earnings, in Quebec 70 p.c. and in Prince Edward Island 75 p.c. In Ontario and Saskatchewan, the average earnings are the maximum amount payable.

The minimum payable to a consort and one child in Quebec is \$55 per month, or \$65 if there is more than one child; in Manitoba, the minimum is \$12.50 per week, or if there is more than one child, \$15 per week; in Saskatchewan, it is \$85 a month, and if there are more children, \$100. In Newfoundland and Ontario, the minimum payable to a widow and five or more children is \$100 per month.

The rate for total disablement in Newfoundland, Nova Scotia, New Brunswick and Manitoba is a periodical payment for duration of disability equal to 66 $\frac{2}{3}$ p.c. of average earnings; in Quebec and British Columbia, the rate is 70 p.c. of earnings; and in Prince Edward Island, Ontario, Saskatchewan and Alberta, 75 p.c. Except in New Brunswick, the Acts fix minimum sums to be paid for a permanent total disability. The weekly minima are \$15 in Prince Edward Island, Quebec, Manitoba and British Columbia, \$20 in Saskatchewan and \$25 in Alberta. In Newfoundland, the minimum is \$65 per month, in Nova Scotia it is \$85 per month, and in Ontario \$100 per month. If, however, average earnings are less than these minima, the amount of the earnings is paid in all provinces except Nova Scotia and Saskatchewan.

For partial disablement, compensation in most provinces is a percentage of the difference in earnings before and after the accident, the percentage rate being the same as in total disablement. In New Brunswick and Alberta, the amount is determined by the Board according to the diminution of earning capacity, except in cases of temporary partial disablement in New Brunswick where compensation is two-thirds of the difference in earnings before and after the accident. In all provinces except British Columbia, if the impairment of earning capacity is 10 p.c. or less, a lump sum may be given.

The average earnings on which compensation is based are limited to \$4,000 a year in Ontario and Saskatchewan (in the latter case from Jan. 1, 1953), \$3,600 in British Columbia, \$3,000 in Newfoundland, Nova Scotia, New Brunswick, Quebec, Manitoba and Alberta, and \$2,500 in Prince Edward Island. If the workman's earnings at the time of the accident are not considered a proper basis for compensation, the Board may use as a basis the average earnings of another person in the same grade of work. Compensation paid workmen under 21 years of age may be raised later, if it appears that their earning power would have increased had the injury not occurred. Workmen's compensation statistics by provinces are not on a comparable basis and are presented in Tables 32-40.

The Workmen's Compensation Board of Newfoundland commenced operations Apr. 1, 1951. Prior thereto, the number of cases reported since Confederation by the Registrar of the Supreme Court, under the Workmen's Compensation Act, 1948, are: Apr. 1-Dec. 31, 1949, 35; 1950, 41; Jan. 1-Mar. 31, 1951; 37. Industrial accidents reported to the Workmen's Compensation Board of Newfoundland, Apr. 1-Dec. 31, 1951, totalled 5,563.

32.—Operations of the Prince Edward Island Workmen's Compensation Board, 1949-51

Year	Compensation	Medical Aid	Total	Claims Reported
	\$	\$	\$	No.
1949 ¹	13,100	5,984	19,084	249
1950.....	43,523	21,455	64,978	890
1951.....	32,899 ^p	19,882 ^p	52,781 ^p	900

¹ Figures for 1949 cover the first six months of operation of Board.

33.—Operations of the Nova Scotia Workmen's Compensation Board, 1942-51

NOTE.—Estimates for outstanding claims are not included. Statistics from 1917-41 are given in previous Year Books beginning with the 1938 edition.

Year	Compensation	Medical Aid	Total	Accidents Compensated
	\$	\$	\$	No.
1942.....	1,730,169	211,663	1,941,832	17,455
1943.....	2,897,718	196,511	3,094,229	16,926
1944.....	2,693,483	185,392	2,878,875	19,027
1945.....	1,243,148	207,000	1,450,148	18,396
1946.....	1,181,207	194,912	1,376,119	19,496
1947.....	1,074,399	151,896	1,226,295	18,890
1948.....	1,054,654	168,403	1,223,057	19,741
1949.....	1,097,846	171,082	1,268,928	19,423
1950.....	1,316,737	335,194	1,651,932	15,840
1951.....	1,295,363	351,686	1,650,049	16,601

34.—Operations of the New Brunswick Workmen's Compensation Board, 1942-51

NOTE.—Statistics from 1920-41 are given in previous Year Books beginning with the 1938 edition.

Year	Weekly Compensation	Permanent Partial Disability	Fatal		Medical Aid		Permanent Total Disability Reserve
			Funeral Expenses	Reserve for Pensions	Doctors' Fees and Transportation	Hospital and Nursing Service	
	\$	\$	\$	\$	\$	\$	\$
1942.....	459,528	82,632	3,275	143,392	125,837	89,246	1
1943.....	486,304	113,332	2,900	94,414	115,121	82,266	5,085
1944.....	658,666	388,992	2,624	142,921	125,116	94,809	8,330
1945.....	772,210	141,998	3,392	142,624	125,300	102,256	1
1946.....	776,646	186,638	3,125	153,702	152,102	101,753	12,901
1947.....	834,738	244,676	3,514	230,460 [†]	168,650	136,140	128,372
1948.....	814,419	229,341	3,879	200,227 [†]	179,360	135,360	146,060
1949.....	680,138 [†]	323,799 [†]	2,450 [†]	133,844 [†]	183,208 [†]	143,350 [†]	23,650
1950.....	637,768	320,772	3,550	191,923	188,785	153,238	33,665
1951 [†]	605,212	221,844	3,395	162,000	129,699	117,567	57,227

[†] Not reported.

35.—Operations of the Quebec Workmen's Compensation Commission, 1942-51

NOTE.—Statistics from 1928-41 are given in previous Year Books beginning with the 1940 edition.

Year	Claims Schedules 1 and 2	Compensation Schedule 1	Medical Aid Schedule 1
	No.	\$	£
1942.....	96,888	6,792,098	1,475,123
1943.....	90,564	6,462,259	1,389,008
1944.....	84,308	7,012,031	1,414,138
1945.....	82,724	7,737,865	1,458,809
1946.....	90,900	8,595,754	1,663,587
1947.....	96,135	9,774,008	1,836,483
1948.....	93,028	9,208,381	2,001,929
1949.....	85,040	9,342,925 [†]	1,960,395 [†]
1950.....	86,246	9,241,226	2,080,876
1951.....	95,930	6,247,663	1,893,801

36.—Operations of the Ontario Workmen's Compensation Board, 1942-51

NOTE.—Statistics from 1915-41 are given in previous Year Books beginning with the 1938 edition.

Year	Benefits Awarded				Accidents Reported
	Schedule 1		Schedule 2 ¹ and Crown Com- pensation	Total Benefits	
	- Com- pensation	Medical Aid			
	\$	\$	\$	\$	No.
1942.....	7,225,733	1,977,854	1,733,376	10,936,963	133,513
1943.....	6,932,198	1,948,048	2,264,507	11,144,753	131,458
1944.....	8,317,960	1,888,846	2,278,793	12,485,599	123,820
1945.....	8,690,344	1,889,830	2,555,764	13,135,938	118,220
1946.....	11,797,877	2,358,949	2,345,197	16,502,023	138,570
1947.....	12,412,296	2,735,271	2,613,175	17,760,742	168,767
1948.....	15,272,487	4,082,032	4,355,763	23,710,282	179,811
1949.....	11,346,994	4,719,512	2,961,844	19,028,350	179,894
1950.....	12,323,631	4,943,899	3,219,866	20,487,396	182,144
1951.....	15,449,742	5,756,311	3,793,466	24,999,520	202,645

[†] Comprises employers individually liable.

37.—Operations of the Manitoba Workmen's Compensation Board, 1942-51

NOTE.—Statistics from 1917-41 are given in previous Year Books beginning with the 1938 edition.

Year	Benefits Awarded			Accidents Com- pensated
	Compensation	Medical Aid	Total	
	\$	\$	\$	No.
1942.....	1,165,627	245,255	1,410,882	13,785
1943.....	1,386,104	240,492	1,626,596	13,948
1944.....	1,379,142	225,088	1,604,230	16,229
1945.....	1,353,094	211,125	1,564,219	16,196
1946.....	1,414,829	264,742	1,679,571	14,795
1947.....	1,439,275	295,295	1,734,570	15,746
1948.....	1,684,309	347,782	2,032,091	16,783
1949.....	1,671,686	361,033	2,032,720	17,125 ¹
1950.....	1,682,574	365,686	2,048,261	16,513
1951.....	1,641,093	434,436	2,075,529	20,441 ¹

¹ Accidents reported.**38.—Operations of the Saskatchewan Workmen's Compensation Board, 1942-51**

NOTE.—Statistics from 1930-41 are given in previous Year Books beginning with the 1938 edition.

Year	Benefits Awarded			Accidents Com- pensated
	Compensation	Medical Aid	Total	
	\$	\$	\$	No.
1942.....	539,942	150,679	690,621	6,766
1943.....	676,592	138,355	814,947	6,921
1944.....	853,022	156,594	1,009,616	7,702
1945.....	800,516	176,697	977,213	7,509
1946.....	1,175,704	207,129	1,382,833	9,509
1947.....	1,550,635	238,257	1,788,893	11,860
1948.....	1,577,081	294,261	1,871,342	11,944
1949.....	1,588,969	306,271	1,895,240	10,830 ¹
1950.....	1,804,606	380,512	2,185,118	12,944
1951.....	1,700,302	426,703	2,127,005	13,676 ¹

¹ Claims reported.**39.—Operations of the Alberta Workmen's Compensation Board, 1942-51**

NOTE.—Statistics from 1921-41 are given in previous Year Books beginning with the 1938 edition. Amounts shown do not include sums transferred to pension fund, administration expenses, nor sums set aside to cover estimated liabilities. Accidents compensated do not include cases for medical aid only.

Year	Benefits Awarded			Accidents Reported	Accidents Com- pensated
	Com- pensation	Medical Aid	Total		
	\$	\$	\$	No.	No.
1942.....	608,885	322,375	931,260	18,680	7,509
1943.....	816,493	368,299	1,184,792	19,700	7,602
1944.....	498,303	234,708	733,011	19,286	7,988
1945.....	517,879	249,639	767,518	19,154	8,891
1946.....	634,725	304,828	939,553	23,068	10,751
1947.....	721,226	365,778	1,087,004	25,864	11,632
1948.....	858,116	441,735	1,299,851	28,557	12,253
1949.....	1,110,324	572,571	1,682,895	32,396	13,213
1950.....	1,085,159	595,144	1,680,303	33,337	13,397
1951.....	1,158,684	670,885	1,829,569	35,804	13,370

40.—Operations of the British Columbia Workmen's Compensation Board, 1942-51

NOTE.—Statistics from 1917-41 are given in previous Year Books beginning with the 1938 edition.

Year	Benefits Awarded			Claims (gross)
	Compensation	Medical Aid	Total	
	\$	\$	\$	No.
1942.....	6,941,736	1,586,164	8,527,900	65,475
1943.....	7,344,122	1,184,253	8,528,375	68,635
1944.....	8,031,613	1,182,236	9,213,849	60,463
1945.....	8,047,679	1,115,513	9,163,192	55,584
1946.....	8,413,654	1,353,596	9,767,250	59,947
1947.....	9,390,825	1,756,758	11,147,583	75,018
1948.....	10,202,450	2,270,329	12,472,780	74,064
1949.....	10,764,950	2,363,290	13,128,241	69,252
1950.....	12,164,699	2,648,484	14,813,184	71,504
1951.....	11,451,445	2,939,923	14,391,369	76,698

Section 8.—Workers Affected by Collective Agreements

Statistics on the number of workers affected by collective agreements in Canada are compiled by the Department of Labour. Table 41 gives figures for the principal industrial groups. The second column shows the number of workers affected by agreements extended under the Quebec Collective Agreement Act (see Sect. 1, ss. 2, p. 687). Any duplication of the numbers of workers covered by agreements under this Act and by other agreements is eliminated in the third column. Of the total number of workers affected by agreements, 89 p.c. are represented by international or national unions. A more detailed table and studies of agreements in certain industries are available from the Department of Labour, Ottawa, Ont.

41.—Workers Affected by Collective Agreements, by Industries, 1950

Industrial Group	Agreements (other than those in Column 2)	Agreements Extended Under Collective Agreement Act, Quebec	Total ¹
	No.	No.	No.
Agriculture.....	—	—	—
Forestry, Fishing, Trapping.....	54,193	—	54,193
Mining (including milling), Quarrying and Oil Wells.....	56,241	40	56,250
Coal mining.....	21,788	—	21,788
Metal mining.....	26,337	—	26,337
Other.....	8,116	40	8,125
Manufacturing.....	569,591	84,210	618,613
Vegetable foods.....	22,950	322	23,253
Other vegetable products.....	34,408	—	34,408
Animal foods.....	19,486	—	19,486
Leather and fur products.....	15,000	18,802	27,669
Textile products.....	87,553	31,682	102,611
Wood and paper products (including printing).....	115,939	17,178	127,245
Iron products.....	163,655	13,558	171,903
Non-ferrous metal products.....	66,636	595	67,231
Non-metallic mineral products.....	21,324	843	22,167
Chemical products.....	15,988	1,230	15,988
Miscellaneous products.....	6,652	—	6,652
Electricity and Gas Production and Supply.....	24,134	—	24,134
Construction.....	51,876	78,530	129,202
Transportation and Communications.....	275,448	8,490	279,023
Electric railways and local bus lines.....	21,658	—	21,658
Steam railways (including express).....	157,888	—	157,888
Water transportation (including stevedoring).....	36,049	4,872	36,604
Other.....	59,853	3,618	62,873
Trade.....	26,423	11,444	36,345
Service.....	75,975	9,514	84,245
Totals.....	1,133,881	192,228	1,282,005

¹ Duplications in columns 1 and 2 are eliminated from these totals.

Section 9.—Organized Labour in Canada*

At the beginning of 1951 there were 1,028,521 labour union members in Canada, an increase of 2·3 p.c. over the figure for the previous year. The majority of the unions in Canada are affiliated with a central labour congress and their membership is listed in Table 44. In addition, each of the three largest congresses are discussed below.

Trades and Labour Congress of Canada.—The Trades and Labour Congress of Canada is the oldest of the central labour organizations in Canada. After the disbanding of the Canadian Labour Union, which had drawn together local unions in Ontario from 1873 to 1877, inclusive, there was no central organization until 1883, when the Trades and Labour Council of Toronto called a conference of local unions and plans were made to establish a national organization which was formally set up in 1886.

Affiliated with the Trades and Labour Congress at the present time are 'international' trade unions, almost all of which are also affiliated with the American Federation of Labour, a number of Canadian or 'national' unions and a number of directly chartered labour unions.

Canadian Congress of Labour.—This Congress was organized in September of 1940, when the All-Canadian Congress of Labour, formed in 1927, amended its constitution to permit the affiliation with the Congress of the Canadian branches of those international unions which, in the United States, are affiliated with the Congress of Industrial Organization. The Canadian Congress includes among its members a number of unions to which it has granted charters.

Canadian and Catholic Confederation of Labour.—National Catholic Unions in Canada date from 1901. In 1921 these local Catholic Syndicates, grouped as far as possible into federations according to industry, formed a central organization, the Canadian and Catholic Confederation of Labour.

* Information concerning unions is published in the Department of Labour annual publication, *Labour Organization in Canada*.

42.—Membership of Unions in Canada, 1918-51

Year	Members	Year	Members	Year	Members
	No.		No.		No.
1918.....	248,887	1929.....	319,476	1940.....	362,223
1919.....	378,047	1930.....	322,449	1941.....	461,681
1920.....	373,842	1931.....	310,544	1942.....	578,380
1921.....	313,320	1932.....	283,096	1943.....	664,533
1922.....	276,621	1933.....	285,720	1944.....	724,188
1923.....	278,092	1934.....	281,274	1945.....	711,117
1924.....	260,643	1935.....	280,648	1946.....	831,697
1925.....	271,064	1936.....	322,746	1947.....	912,124
1926.....	274,604	1937.....	383,492	1948.....	977,594
1927.....	290,282	1938.....	381,645	1949.....	1,005,639
1928.....	300,602	1939.....	358,967	1951 ¹	1,028,521

¹ Figures for 1949 and previous years, are as at Dec. 31; figures for 1951 are as at Jan. 1.

43.—Union Membership and Local Branches in Canada, as at Jan. 1, 1951

Organization	Branches	Membership
	No.	No.
Trades and Labour Congress of Canada.....	2,982	470,926
American Federation of Labour only.....	33	11,307
Canadian Congress of Labour.....	1,231	312,532
Congress of Industrial Organizations only.....	6	1,500
Canadian and Catholic Confederation of Labour.....	440	86,184
International Railway Brotherhoods (Independent).....	387	40,459
Canadian Federation of Labour.....	6	3,971
National Council of Canadian Labour.....	30	5,138
Unaffiliated National and International Unions.....	285	80,083
Unaffiliated local unions.....	58	16,421
Totals.....	5,458	1,028,521

44.—Unions having 1,000 or more Members in Canada, as at Jan. 1, 1951

Organization	Reported or Estimated Membership
International Unions	No.
Automobile, Aircraft and Agricultural Implement Workers of America, International Union, United.....	60,000
Bakery and Confectionery Workers' International Union of America.....	3,789
Barbers, Hairdressers, Cosmetologists' and Proprietors' International Union of America, Journeymen.....	1,342
Blacksmiths, Drop Forgers and Helpers, International Brotherhood of.....	1,100
Boilermakers, Iron Ship Builders and Helpers of America, International Brotherhood of.....	6,092
Bookbinders, International Brotherhood of.....	2,903
Brewery, Flour, Cereal, Soft Drink and Distillery Workers of America, International Union of United.....	2,300
Bricklayers, Masons and Plasterers' International Union of America.....	3,817
Bridge, Structural and Ornamental Iron Workers, International Association of.....	2,081
Building Service Employees' International Union.....	3,813
Carpenters and Joiners of America, United Brotherhood of.....	38,276
Cement, Lime and Gypsum Workers' International Union, United.....	1,600
Chemical Workers Union, International.....	8,319
Clothing Workers of America, Amalgamated.....	12,500
Commercial Telegraphers' Union, The.....	4,116
Communications Workers of America.....	2,500
Distillery, Rectifying and Wine Workers' International Union of America.....	3,300
Electrical, Radio and Machine Workers of America, United.....	24,826
Electrical Workers, International Brotherhood of.....	15,000
Engineers, International Union of Operating.....	4,806
Fire Fighters, International Association of.....	6,100
Firemen and Oilers, International Brotherhood of.....	2,300
Fur and Leather Workers' Union of the United States and Canada, International.....	6,700
Garment Workers of America, United.....	1,350
Garment Workers' Union, International Ladies.....	14,630
Gas, Coke and Chemical Workers of America, United.....	1,500
Hatters, Cap and Millinery Workers' International Union, United.....	3,000
Hod Carriers, Building and Common Labourers' Union of America, International.....	2,982
Hotel and Restaurant Employees' and Bartenders' International Union.....	8,858
Lithographers of America, Amalgamated.....	1,622
Locomotive Engineers, Brotherhood of.....	7,850
Locomotive Firemen and Enginemen, Brotherhood of.....	9,855
Longshoremen's Association, International.....	5,000
Longshoremen's and Warehousemen's Union, International.....	1,450
Machinists, International Association of.....	26,734
Maintenance of Way Employees, Brotherhood of.....	18,000
Metal Workers' International Association, Sheet.....	2,806
Mine, Mill and Smelter Workers, International Union of.....	25,000
Mine Workers of America, United.....	25,717
Moulders and Foundry Workers' Union of North America, International.....	6,697
Musicians of the U.S. and Canada, American Federation of.....	10,328
Office Employees' International Union.....	1,567
Oil Workers International Union.....	1,886
Packinghouse Workers of America, United.....	16,000
Painters, Decorators and Paperhangers of America, Brotherhood of.....	4,524

44.—Unions having 1,000 or more Members in Canada, as at Jan. 1, 1951—continued

Organization	Reported or Estimated Membership
International Unions—concluded	
	No.
Paper Makers, International Brotherhood of	6,845
Plasterers' and Cement Masons' International Association of the U.S. and Canada, Operative	1,427
Plumbing and Pipe Fitting Industry of the United States and Canada, United Association of Journeymen and Apprentices of the	9,200
Printing Pressmen and Assistants' Union of North America, International	5,750
Pulp, Sulphite and Paper Mill Workers, International Brotherhood of	33,138
Railroad Telegraphers, The Order of	9,000
Railroad Trainmen, Brotherhood of	20,643
Railway and Motor Coach Employees of America, Amalgamated Association of Street Electric	14,146
Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, Brother- hood of	15,312
Railway Carmen of America, Brotherhood of	21,861
Railway Conductors of America, Order of	2,111
Retail Clerks' International Association	2,470
Rubber, Cork, Linoleum and Plastic Workers of America, International Union, United	10,384
Seafarers' International Union of North America	6,180
Stage Employees and Moving Picture Machine Operators of the United States and Canada, International Alliance of Theatrical	1,000
Steelworkers of America, United	55,000
Store Union, Retail, Wholesale and Department	6,000
Teamsters, Chauffeurs, Warehousemen and Helpers of America, International Brotherhood of	14,853
Textile Workers of America, United	15,000
Textile Workers' Union of America	15,500
Tobacco Workers' International Union	5,452
Typographical Union, International	5,634
Upholsterers' International Union of North America	2,574
Woodworkers of America, International	20,478
National Unions	
Bas façonné et circulaire, Fédération Nationale des Employés du (Hosiery Workers, National Federation of Full Fashioned and Circular) (C.T.C.C.)	2,595
Bâtiment et Matériaux de Construction, Fédération Nationale des Métiers (Building and Construction Materials, National Federation of Trades) (C.T.C.C.)	15,168
Bois ouvré du Canada inc., Fédération Nationale Catholique de l'industrie du (Wrought Wood Industry of Canada Inc., National Catholic Federation of the) (C.T.C.C.)	4,045
Building and Construction Workers of Canada, Amalgamated (C.C.L.)	2,603
Civic Employees, Federation of (C.C.L.)	1,601
Civil Servants of Canada, Amalgamated (Ind.)	7,377
Civil Service Association of Alberta, The (T.L.C.)	4,700
Civil Service Association, The Saskatchewan (T.L.C.)	3,776
Commerce, inc., Fédération Nationale Catholique des Employés du (Commerce, Inc., National Catholic Federation of Employees of) (C.T.C.C.)	2,848
Cuir et de la Chaussure du Canada inc., Fédération Nationale du (National Federation of Leather and Shoe Workers of Canada, Inc.) (C.T.C.C.)	3,257
Electrical Workers, National Organization of Civic, Utility and (C.C.L.)	2,273
Engineers of Canada, National Union of Operating (C.C.L.)	2,500
Express Employees, Brotherhood of (C.C.L.)	3,624
Fishermen and Allied Workers' Union, United (T.L.C.)	7,399
Fruit and Vegetable Workers' Unions, Federation of (T.L.C.)	2,800
Government Employees' Association, British Columbia (T.L.C.)	7,800
Imprimerie du Canada, Enrg., Fédération des Métiers de l' (Printing Trades of Canada Reg., Federation of) (C.T.C.C.)	2,800
Letter Carriers, Federated Association of (T.L.C.) (2)	3,043
Marine Workers' Federation, Maritime (C.C.L.)	2,000
Maritime Federation of Canada, National (C.F.L.) (3)	3,851
Merchant Service Guild, Canadian (T.L.C.)	1,452
Métallurgie, Fédération Nationale de la (Metal Trades' Federation, The National) (C.T. C.C.)	6,587
Meuble, inc., La Fédération Nationale du (Furniture Federation Inc., The National) (C.T. C.C.)	1,429
Minière inc., Fédération Nationale des Employés de l'Industrie (Mining Industry Em- ployees inc., National Federation of) (C.T.C.C.)	4,000
Municipaux du Canada inc., Fédération Nationale des Employés (Municipal Employees of Canada inc., National Federation of) (C.T.C.C.)	4,553
One Big Union (Ind.)	12,870
Postal Employees' Association of Canada (T.L.C.) (2)	6,242
Pulpe et du Papier inc., Fédération Nationale des Travailleurs de la (Pulp and Paper Workers inc., National Federation of) (C.T.C.C.)	9,300

44.—Unions having 1,000 or more Members in Canada, as at Jan. 1, 1951—concluded

Organization	Reported or Estimated Membership
National Unions—concluded	
	No.
Railway Employees and Other Transport Workers, Canadian Brotherhood of (C.C.L.)....	33,000
Railwaymen, Canadian Association of (Ind.).....	3,307
Railwaymen, The National Union of (Ind.).....	3,107
Railway Mail Clerks' Federation, Canadian (Ind.).....	1,053
Services, inc., Fédération Nationale Catholique des (Services, Inc., National Catholic Federation of) (C.T.C.C.) (5).....	4,500
Shipyard General Workers' Federation of British Columbia (C.C.L.).....	1,774
Shoe and Leather Workers, National Union of (C.C.L.).....	1,779
Teachers' Federation, British Columbia (T.L.C.).....	5,380
Textile inc., Fédération Nationale Catholique du (Textile Workers, Inc., National Catholic Federation of) (C.T.C.C.).....	10,000
Vêtement inc., Fédération Nationale des Travailleurs de l'Industrie du (Clothing Industry Workers Inc., National Federation of) (C.T.C.C.).....	3,900

Section 10.—Strikes and Lockouts*

Statistics of strikes and lockouts in Canada have been collected by the Federal Department of Labour since its establishment in 1900.

The outstanding features of 1951 as compared with 1950 were an increase of more than 60 p.c. in the number of work stoppages and a decrease of about 35 p.c. in the time loss. The number of strikes and lockouts in 1951 was the highest since 1943 and strike idleness the lowest since 1948. The number of workers involved in 1951 stoppages was higher than average but was 46 p.c. below the 1950 total which was inflated by the large number of workers involved in the railway strike.

The latest figures available show that, in 1950, collective agreements in effect covered 1,282,005 workers. A large majority of these contracts were renewed in 1951 by peaceful negotiations. In 1951, disputes over renewals of existing contracts caused only 70 stoppages, involving 32,111 workers, or 2.5 p.c. of the total of all workers covered by agreements.

Wages and related questions have been the predominant issues in strikes and lockouts during the last six years. Steadily rising consumer prices during this period have made the financing of the family budget a matter of real concern to the Canadian worker. Despite a sharp increase in the cost-of-living index in 1951, there was a substantial decline in the percentage of time lost in disputes over wage increases. In 1951, this issue caused 48 p.c. of the stoppages, involved 48 p.c. of the workers and caused 70 p.c. of the total time loss, as compared with an average for 1946-50 of 59 p.c. of the stoppages, 73 p.c. of the workers, and 90 p.c. of the total strike idleness. In 1951, other causes affecting working conditions caused 19 p.c. of the stoppages; union questions, other than for increased wages, 18 p.c.; and discharge of workers, suspension, refusal to reinstate and employment of particular persons, other than in connection with union questions, 15 p.c. of the total. There were two small sympathy strikes in 1951, three in 1950, one in 1949 and none in 1948. Pension and welfare plans have not been important issues at any time.

* A complete review of strikes and lockouts during 1950 and 1951 will be found in supplements to the *Labour Gazette* for April 1951 and April 1952.

Strike idleness in the manufacturing group of industries was greater than in all other industries combined, causing 74 p.c. of the total time lost in 1951. In 1950, the greatest loss was in transportation, the railway strike accounting for more than 1,000,000 days. In 1951, time lost in transportation disputes was negligible. Mining accounted for 16 p.c. of the total time loss in 1951 but stoppages in coal mining caused less than 5 p.c. of the total for the group; in the construction industry, stoppages caused less than 8 p.c. of the total idleness.

Direct negotiations between workers and employers brought about settlement of 113 of the 259 stoppages in 1951, in some cases with provincial conciliators acting in an advisory capacity at some stage of the negotiations or in drafting contracts. Provincial conciliation effected settlement in 42 cases, federal conciliation in one, and civic mediation in one; 15 were referred to labour boards and commissioners; six were settled by arbitration; and 70 by return of workers and replacement, the latter being a factor in 21 cases.

45.—Summary Statistics of Strikes and Lockouts, 1942-51

Year	Strikes Beginning during the Year	Strikes and Lockouts in Existence in all Industries during the Year						
		Strikes and Lockouts	Employ- ers	Workers Involved	Time Loss			
					In Man- Working Days	Average Days per Wage- and Salary- Earner ¹	Average Days per Worker Involved	Estimate of Working Time ¹
	No.	No.	No.	No.	No.	No.	No.	p.c.
1942.....	352	354	492	113,916	450,202	0.16	3.95	0.05
1943.....	401	402	651	218,404	1,041,198	0.35	4.77	0.12
1944.....	195	199	400	75,290	490,139	0.16	6.51	0.06
1945.....	196	197	418	96,068	1,457,420	0.49	15.17	0.17
1946.....	225	228	1,299	139,474	4,516,393	1.49	32.38	0.50
1947.....	232	236	1,173	104,120	2,397,340	0.77	23.02	0.26
1948.....	147	154	674	42,820	885,793	0.27	20.68	0.09
1949.....	132	137	542	51,437	1,063,667	0.32	20.68	0.11
1950.....	153	161	345	192,153	1,389,039	0.40	7.23	0.13
1951.....	257	259	646	102,870	901,739	0.24	8.77	0.08

¹ Based on the number of non-agricultural wage- and salary-earners in Canada.

46.—Strikes and Lockouts, by Industries, 1950 and 1951

Industry	1950					1951				
	No. of Strikes and Lock- outs	Workers Involved		Time Loss		No. of Strikes and Lock- outs	Workers Involved		Time Loss	
		No.	Per- cent- age	Man- Working Days	Per- cent- age		No.	Per- cent- age	Man- Working Days	Per- cent- age
Agriculture.....	1	...	...	...	...	1	...	...	...	...
Logging.....	1	130	0.1	520	--	2	425	0.4	1,175	0.1
Fishing and Trapping..	1	70	--	1,540	0.1	1	...	...	...	...
Mining ²	15	7,258	3.8	47,800	3.4	23	19,189	18.7	146,969	16.3
Coal.....	11	4,348	2.3	14,925	1.0	16	14,325	14.0	40,129	4.5
Other.....	4	2,910	1.5	32,875	2.4	7	4,864	4.7	106,840	11.8

For footnotes, see end of table.

46.—Strikes and Lockouts, by Industries, 1950 and 1951—concluded

Industry	1950					1951				
	No. of Strikes and Lock- outs	Workers Involved		Time Loss		No. of Strikes and Lock- outs	Workers Involved		Time Loss	
		No.	Per- cent- age	Man- working Days	Per- cent- age		No.	Per- cent- age	Man- working Days	Per- cent- age
Manufacturing.....	99	47,490	24.7	245,346	17.7	162	73,171	71.1	670,124	74.3
Vegetable foods, etc....	1	230	0.1	1,035	0.1	6	905	0.9	6,562	0.7
Tobacco and liquors...	1	...	...	...	...	4	5,193	5.0	117,900	13.1
Rubber and its pro- ducts (including syn- thetic).....	5	1,906	1.0	4,175	0.8	10	9,264	9.0	43,344	4.8
Animal foods.....	3	137	0.1	1,140	0.1	2	296	0.3	1,030	0.1
Boots and shoes (lea- ther).....	3	309	0.2	9,540	0.7	3	200	0.2	1,873	0.2
Fur, leather and other animal products.....	3	205	0.1	3,480	0.3	4	333	0.3	6,745	0.7
Textiles, clothing, etc....	20	3,494	1.8	55,604	4.0	23	2,473	2.5	17,375	1.9
Pulp, paper and paper products.....	2	423	0.2	3,900	0.3	4	462	0.4	21,380	2.4
Printing and publishing.	1	4	--	250	--	2	66	0.1	1,585	0.2
Miscellaneous wood pro- ducts.....	16	2,763	1.4	14,998	1.1	25	2,417	2.3	28,214	3.1
Metal products.....	40	37,306	19.4	136,136	9.8	62	49,717	48.3	401,902	44.6
Ferrous.....	26	34,011	17.7	86,898	6.3	50	46,283	45.0	350,817	38.9
Non-ferrous.....	14	3,295	1.7	49,238	3.5	12	3,434	3.3	51,085	5.7
Shipbuilding.....	1	507	0.3	11,000	0.8	4	1,098	1.1	14,486	1.6
Non-metallic minerals, chemicals, etc.....	3	151	0.1	2,023	0.1	8	652	0.6	6,205	0.7
Miscellaneous products.	1	55	--	2,065	0.1	5	95	0.1	1,523	0.2
Construction.....	13	2,318	1.2	28,866	2.1	32	5,867	5.7	68,412	7.6
Buildings and structures	12	2,258	1.2	28,836	2.1	25	5,585	5.4	67,784	7.5
Railway.....	1	...	...	...	...	1	...	...	...	...
Bridge.....	1	...	...	...	...	1	...	...	...	...
Highway.....	1	...	...	...	...	1	...	...	...	...
Canal, harbour, water- way.....	1	...	...	...	...	1	...	...	...	...
Miscellaneous.....	1	60	--	30	--	7	282	0.3	628	0.1
Transportation and Public Utilities.....	12	132,595	69.0	1,007,920	72.6	13	664	0.6	1,800	0.2
Steam railways.....	2	128,006	66.6	1,000,054	72.0	1	28	--	56	--
Electric railways and local bus lines.....	3	3,060	1.6	2,110	0.2	2	95	0.1	425	--
Other local and high- way transport.....	2	180	0.1	615	--	7	397	0.4	454	0.1
Water transport.....	2	856	0.4	2,843	0.2	1	77	0.1	115	--
Air transport.....	1	...	...	...	...	1	58	--	550	0.1
Telegraph and telephone	1	300	0.2	1,350	0.1	1	...	...	...	...
Electricity and gas.....	2	193	0.1	948	0.1	1	9	--	200	--
Miscellaneous.....	1	...	...	...	...	1	...	...	...	...
Trade.....	7	378	0.2	10,867	0.8	15	2,957	2.9	7,947	0.9
Finance.....	1	...	...	...	...	1	...	...	...	...
Service.....	13	1,914	1.0	46,180	3.3	12	597	0.6	5,312	0.6
Public administration ⁴ .	2	1,159	0.6	26,860	1.9	4	175	0.2	164	--
Recreation.....	1	11	--	140	--	1	...	...	...	...
Business and personal...	10	744	0.4	19,180	1.4	8	422	0.4	5,148	0.6
Totals.....	161	192,153	100.0	1,389,039	100.0	259	102,870	100.0	901,739	100.0

¹ None reported.² Includes non-ferrous metal smelting.³ Includes erection of all largebridges. ⁴ Includes water service.

Section 11.—Canada and the International Labour Organization

The Department of Labour is the officially designated liaison agency between the Canadian Government and the International Labour Organization. The ILO was established in 1919, in association with the League of Nations under the Treaties of Peace, with the object of improving labour and social conditions throughout the world by international agreement and legislative action. Under an agreement approved by the General Conference of the International Labour Organization at its 29th Session held at Montreal, Que., Oct. 2, 1946, and by the United Nations General Assembly on Dec. 14, 1946, the Organization became a specialized agency of the United Nations, although retaining its autonomy.

An association of 65 nations, financed by their governments and controlled by representatives of those governments and of their organized employers and workers, the Organization comprises: (1) the General Conference of representatives of the Member States; (2) the International Labour Office; and (3) the Governing Body. The Organization's structure and field of activity has been extended considerably since 1945 by the establishment of eight tripartite committees to deal with problems of major world industries.

The Conference in normal times meets at least once a year, and is composed of four delegates from each Member State, two representing the government, one representing the employers, and one representing the workers; these are accompanied by technical advisers. Decisions of the Conference are in the form of Conventions or Recommendations. The former, when given legislative effect and ratified by Member States, are legally binding on them. The enforcement of Conventions within such countries is a matter for annual consideration by the Conference. The ILO constitution requires, however, that every Convention must be brought before the competent authority or authorities for legislative or other action. In Canada, the competent authorities in respect of the subject matter of most of the Conventions and Recommendations are the provincial legislatures. Amendments to the constitution adopted by the Conference in 1946 included new provisions concerning the obligations imposed on federal countries with respect to the manner of dealing with Conventions and Recommendations. These changes in procedure are expected to facilitate the adoption of Conventions and Recommendations by the constituent States or provinces of federal countries.

The International Labour Office acts as the permanent secretariat of the Organization and as an information centre and publishing house with respect to all questions on industry and labour. The ILO maintains a Canadian branch office at 95 Rideau Street, Ottawa.

The Governing Body of the ILO consists of 32 members—16 government representatives, eight employer representatives and eight worker representatives. Of the government seats, the eight States of chief industrial importance (of which Canada is one) each holds a permanent place, while the other eight government representatives are elected triennially by the Conference; the worker and employer members also are elected every three years at the Conference by their groups. In addition, there are eight government, eight worker, and eight employer deputy-members elected for three-year terms. The Governing Body meets three or four times a year, and has general supervision of the work of the Office and the various

committees and commissions of the Organization, in addition to framing the budget and drafting the agendas of the annual conferences. Canada's representative on the Governing Body is Federal Deputy Minister of Labour, Arthur MacNamara.

There have been 34 sessions of the International Labour Conference, at which 100 Conventions and 92 Recommendations have been adopted covering a wide range of subjects, such as freedom of association, hours of work, weekly rest, holidays with pay, minimum wages, night work of women and young persons, industrial health and safety, workmen's compensation, conditions of work for seamen and dockers, unemployment and health insurance, colonial labour, protection of migrant workers, and many other aspects of industrial and social problems. Up to 1952, the ratifications of the Conventions by Member States total about 1,250, and the Recommendations have served as valuable guides to national programs of industrial and social advancement.

During 1951, in addition to the 34th Annual Conference, the following ILO meetings were held: four sessions of the Governing Body; sessions of the Building, Civil Engineering and Public Works Industrial Committee, the Coal Mines Industrial Committee, and the Inland Transport Industrial Committee; meetings of the Committee of Experts on Indigenous Labour, the Committee on Application of Conventions and Recommendations, the Committee of Experts on Payment by Results, and the Joint Maritime Commission; a Regional Conference of Member States in the Near and Middle East; and a Preliminary Migration Conference. During the first half of 1952, the following meetings were scheduled: two sessions of the Governing Body; sessions of the Metal Trades Industrial Committee and the Iron and Steel Industrial Committee; meetings of the Advisory Committee on Salaried Employees and Professional Workers and the Committee of Experts on the Application of Conventions and Recommendations; an Inter-American Social Security Conference; a Regional Conference of Member States in the Americas; and the 35th Annual General Conference. Canada is represented at nearly all of these and full accounts will be found in the *Labour Gazette*.

Canada has ratified 18 of the ILO Conventions, 12 of which concern maritime and dock labour; one of these, Convention No. 58 on Minimum Age for Employment at Sea, was ratified in September 1951. The Department of Labour, as the official liaison agency with the International Labour Organization, is responsible for forwarding to the Office annual reports on ratified Conventions as well as periodical reports on many other industrial and social problems. The Department also keeps provincial governments, employer and worker organizations, and the general public informed of ILO activities.

CHAPTER XIX.—TRANSPORTATION AND COMMUNICATIONS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Canada, nearly 4,000 miles in length from east to west, with the main topographic barriers running in a north-south direction and a relatively small population of 14,009,029 (1951 Census) unevenly distributed along the southern strip of this vast area, presents unusual difficulties from the standpoint of transportation and communication. Different parts of the country are shut off from each other by the Cabot Strait, the Strait of Belle Isle, by areas of rough, rocky forest terrain such as the region lying between New Brunswick and Quebec, the areas north of Lakes Huron and Superior dividing the industrial region of Ontario and Quebec from the agricultural areas of the Prairie Provinces, and the barriers interposed by the mountains of British Columbia. To such a country, with a population so dispersed and producing for export as well as for consumption in distant areas of the country itself, cheap transportation and efficient communication systems are necessities of existence.

The value of each of the principal agencies of transportation is appraised in Parts II, III, IV and V of this Chapter and the development of communication facilities in Parts VI, VII, VIII and IX. Government control over all such transportation and communication agencies is covered in Part I.

PART I.—GOVERNMENT CONTROL OVER AGENCIES OF TRANSPORTATION AND COMMUNICATION

Section 1.—Government Control Over Agencies of Transportation*

Carriers by rail, road, water and air are, or should be, inter-related parts of an integral whole where each agency has its place in the efficient provision of necessary transportation. The Federal Department of Transport was organized on Nov. 2, 1936, under authority of the Statutes of 1936, c. 34, to unify in one Department the control and supervision of railways, canals, harbours, marine and shipping, civil aviation, radio and meteorology. Road and highway development is mainly under provincial or municipal control or supervision (see Part III).

The business of transportation and communications is, generally speaking, a 'natural monopoly', i.e., a type of enterprise in which service can be more efficiently and economically rendered to the public where one or a few concerns control a particular type of service throughout the country. For this reason there has been a strong tendency toward consolidation and amalgamation over the past half-century. In recent years, the outstanding example of consolidation in Canada is the concentration of control of the railways under the Canadian Pacific Railway Company and the Canadian National Railway System.

Since such control has a tendency to bring with it elements of monopoly and possible overcharge, it was deemed advisable to set up authorities to control the rates to be charged and other conditions under which services to the public are to be rendered by common carriers. This control, so far as the railways under charter or within the jurisdiction of the Federal Government are concerned, is regulated by the Board of Transport Commissioners. From time to time the regulatory authority has been extended to some degree to other utilities (*see under "Air Transport Board"*, pp. 740-741).

Besides the Board of Transport Commissioners there exist, in several of the provinces, bodies that undertake the supervision and control of local public utilities operating under the jurisdiction of the provinces, and the regulation of their rates for service. Among these are the Ontario Department of Municipal Affairs (formerly the Railway and Municipal Board of Ontario, established in 1906), the Quebec Commission of Public Utilities established in 1909, the Nova Scotia Board of Commissioners of Public Utilities and the Public Utilities Commission of Manitoba. In the three most westerly provinces these same duties are performed by provincial Departments of Railways.

The Board of Transport Commissioners for Canada.—An explanation of the situation that led to the introduction in Canada of railway regulation by commission, as well as other information relating to the organization of the Board of Transport Commissioners' procedure, judgments, etc., is given in the 1940 Year Book, pp. 633-635.

The powers of the Board with regard to transport by rail cover matters relating to the location, construction and operation of railways, the most important having to do with rate regulation. Passenger tariffs are divided into standard tariffs and

* This material has been compiled in co-operation with the Board of Transport Commissioners, the Air Transport Board and the Department of Transport.

special tariffs; freight tariffs into class rates, commodity rate, competitive rate and special estimates tariffs. Standard tariffs contain maximum rates and require the Board's approval. Tariffs, other than standard tariffs, go into effect when they are filed and notice of issue has been given in accordance with the Railway Act and the Board's Regulations.

The Board has jurisdiction over the railways in Newfoundland, which became a part of the Canadian National Railway System following the entry of Newfoundland into Confederation, Mar. 31, 1949.

By an amendment to the Railway Act, the regulation of telephone, telegraph and express rates in Canada was given to the Board, but with narrower powers than those given it in dealing with railways.

Under the Transport Act, 1938, and proclamations of the Governor General in Council made thereunder, the Board has power to issue licences to ships engaged in the transportation of passengers or goods on the Great Lakes, the Mackenzie River and the Yukon River. The Board is required to perform the functions vested in it under the Transport Act and the Railway Act with the object of co-ordinating and harmonizing the operations of all carriers engaged in transport by railways and ships. The Board may require every applicant for a licence under the Transport Act to establish public convenience and necessity to its satisfaction and to take into consideration the financial responsibility of a licensee or applicant. The Board may, in the licence, state the ports between which the ships named therein may carry goods or passengers and the schedule of services to be maintained; every standard tariff and every amendment and supplement thereto requires the approval of the Board before it becomes effective.

In 1949 legislation was enacted giving the Board of Transport Commissioners jurisdiction over interprovincial and international pipelines.

The Air Transport Board.—The Air Transport Board was established in September 1944 by amendment to the Aeronautics Act. The Board is responsible for the economic regulation of commercial air services in Canada and is also required to advise the Minister in the exercise of his duties and powers in all matters relating to civil aviation. The regulatory function relates to Canadian air services within Canada and abroad and to foreign air services operating into Canada. It involves the licensing of all such services and the subsequent regulation of the licensees in respect of their economic operation and the provision of service to the public. As provided by the Act, the Board issues Regulations, approved by the Governor in Council, dealing with the classification of air carriers and commercial air services, applications for licences to operate commercial air services, accounts, records and reports, ownership, transfers, consolidation, mergers and leases of commercial air services, traffic tolls and tariffs, and other related matters. Detailed regulatory instructions are issued by the Board in the form of General Orders, published in the *Canada Gazette*, relating to all air services or groups of air services; Board Orders relating to individual air services and Rules and Circulars for general guidance and information are also issued.

The Board participates in the development, formation and operation of international policy and international agreements relating to civil aviation and takes an active part in the proceedings and work of the International Civil Aviation Organization, a member of its staff being the representative of Canada on the Council.

The Board consists of three members, including the Chairman, and the staff comprises a Secretary's Branch, which includes an Administration Division; a Legal Branch, administered by an Executive Director who is Legal Adviser to the Board on all matters of domestic and international air law, and includes an Examiner who conducts public hearings by order of the Board, a Departmental Solicitor and a Licensing Division; and a Traffic Branch, which supervises all matters relating to tariffs and schedules.

Financial and operating statistics are collected under authority of the Board's Regulations by the Bureau of Transportation Economics, which serves the Board of Transport Commissioners for Canada as well as the Air Transport Board.

Report of the Royal Commission on Transportation.—The Royal Commission on Transportation was established by Order in Council dated Dec. 29, 1948, to review and report on the economic, geographic and other disadvantages of certain sections of Canada in relation to transportation services, equalization of freight rates, particular freight-rate problems, railway accounting and statistics, recapitalization of the Canadian National Railways, national transportation policy and other matters affecting Canadian economic policy in respect to transportation.

The Report of the Commission, presented to Parliament in 1951, included the following recommendations: the adoption of a program of freight-rate equalization between all regions in Canada, including uniformity of class and commodity mileage rates and a uniform carload mixing rule; a general revision of the freight classification; that the Crowsnest Pass rates remain under the immediate control of Parliament and that Parliament continue to have the responsibility for fixing these rates; an amendment to the Railway Act to provide that when transcontinental competitive rates are published the tariffs shall contain a provision that rates to or from intermediate territory shall not be more than one-third greater than the transcontinental competitive rates; payment by the Government of Canada of the cost of maintaining the 'link' sections in the so-called Lake Superior territory of the transcontinental railway system between Eastern and Western Canada, estimated at \$7,000,000 annually; the retention of the right of appeal to the Governor in Council from decisions of the Board of Transport Commissioners for Canada; an amendment to the Railway Act to provide for a uniform classification and system of accounts and reports by the Canadian National and Canadian Pacific Railway Companies as prescribed by the Board of Transport Commissioners; that no major changes be made in the Maritime Freight Rates Act or in the Canadian National-Canadian Pacific Act; simplification of the capital structure of the Canadian National Railways, with interest on Canadian Government loans to be payable only when earned, and provision to allow a reserve to be accumulated out of earnings in each year; and the creation of a single Board to co-ordinate and regulate the various agencies of transportation that are under the jurisdiction of the Parliament of Canada, bringing together the Board of Transport Commissioners, the Air Transport Board and the Canadian Maritime Commission.

Section 2.—Government Control Over Agencies of Communication*

The development and control of radio-communication in Canada from the beginning of the century is outlined in the 1945 Year Book, pp. 644-647.

The present phase of national radio broadcasting in Canada was entered upon in 1936 when, with the passage of the Canadian Broadcasting Act, the Canadian Broadcasting Corporation replaced the Canadian Radio Broadcasting Commission (*see* p. 842). The Act gave the Corporation wide powers in the operation of the system and gave to the Minister of Transport the technical control of all broadcasting stations and the authority to make regulations for the control of any equipment liable to cause interference with radio reception.

With the exception of those matters covered by the Canadian Broadcasting Act of 1936, radio-communications are now regulated under the Radio Act, 1938, and Regulations. In addition, all radio-communication matters are administered in accordance with the provisions of the International Telecommunication Convention and Radio Regulations annexed thereto, as well as such Regional Agreements as the Inter-American Telecommunications Convention and Inter-American Agreement, and the North American Regional Broadcasting Agreement.

By Order in Council P.C. 2526, dated June 8, 1948, responsibility for telegraph and telephone services formerly operated by the Federal Department of Public Works was transferred to the Minister of Transport. The general object of these services is to furnish wire communications for outlying and sparsely settled districts where commercial companies do not enter into the field and where the population must receive adequate communication services in the public interest.

A Crown Company, Canadian Overseas Telecommunications Corporation was created by Act of Parliament (Dec. 10, 1949) to acquire for public operation all external telecommunication assets in Canada, in keeping with the Commonwealth Telegraph Agreement, signed May 11, 1948. This Agreement was designed to bring about the consolidation and strengthening of the radio and cable communication systems of the Commonwealth.

Landline telegraph and telephone tariffs and tolls, charged by companies incorporated by the Federal Government, are regulated by the Board of Transport Commissioners under the provisions of the Railway Act.

Tariffs and tolls charged to the public by individuals or companies, for radio telephone or telegraph communications within Canada, are likewise regulated by the Board of Transport Commissioners, under the provisions of the Railway Act, and the Regulations made under the Radio Act, 1938.

PART II.—RAILWAYS†

The treatment of rail transportation is divided into three Sections dealing, respectively, with steam railways, electric railways and express companies.

Section 1.—Steam Railways

The steam railway is the most important transportation agency from the standpoint of investment and of traffic handled and the statistical field is more completely covered for this form of transportation than for any other.

* Revised under the direction of G. C. Browne, Controller, Telecommunications Division, Department of Transport, Ottawa.

† Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics. More detailed information is given in the annual reports of the Division. Certain of the financial statistics are compiled in co-operation with the Department of Transport.

A brief historical sketch of the development of steam railways in Canada is given in the 1940 Year Book, pp. 635-638, and a special article dealing with the wartime role of the railways appears in the 1945 Year Book, pp. 648-651.

Subsection 1.—Mileage and Equipment

Construction was begun in 1835 on the first steam railway in Canada—the short link of 16 miles between Laprairie and St. Johns, Que.—but only 66 miles of railway were in operation by 1850. The first great period of construction was in the 1850's when the Grand Trunk and the Great Western Railways were built as well as numerous smaller lines. The building of the Intercolonial and the Canadian Pacific Railways contributed to another period of rapid expansion in the 1870's and 1880's. In the last period of extensive railway building from 1900 to 1917, the Grand Trunk Pacific, National Transcontinental and Canadian Northern Railways were constructed.

1.—Steam-Railway Mileage, 1900-51

NOTE.—Corresponding figures of total mileage of single track for the years 1835 to 1899 and for the intervening years 1901-1909 are given in the 1941 Year Book, p. 546.

Total Mileage (Single Track)						Mileage, by Provinces				
Year	Miles in Operation	Year	Miles in Operation	Year	Miles in Operation	Type of Track and Province	1941	1949	1950	1951
	No.		No.		No.		No.	No.	No.	No.
1900...	17,657	1922...	39,358	1937...	42,727	Single—				
1905...	20,487	1923...	39,654	1938...	42,742	Nfld.....	...	705	705	705
1910...	24,731	1924...	40,059	1939...	42,637	P.E.I.....	286	286	286	285
1911...	25,400	1925...	40,350	1940...	42,565	N.S.....	1,396	1,396	1,397	1,396
1912...	26,840	1926...	40,350	1941...	42,441	N.B.....	1,836	1,835	1,835	1,835
						Que.....	4,789	4,791	4,795	4,789
						Ont.....	10,476	10,462	10,458	10,440
						Man.....	4,854	4,836	4,834	4,834
1913...	29,304	1927...	40,570	1942...	42,339	Sask.....	8,777	8,739	8,739	8,739
1914...	30,795	1928...	41,022	1943...	42,346	Alta.....	5,747	5,643	5,643	5,647
1915...	34,882	1929...	41,380	1944...	42,336	B.C.....	3,883	3,888	3,890	3,889
1916...	36,985	1930...	42,047	1945...	42,352	Yukon....	58	58	58	58
1917...	38,369	1931...	42,280	1946...	42,335	In U.S.A....	339	339	339	339
						Totals.....	42,441	42,978	42,979	42,956
1918...	38,252	1932...	42,409	1947...	42,322	Second.....	2,499	2,494	2,498	2,487
1919 ¹ ...	38,329	1933...	42,336	1948...	42,248	Industrial....	1,551	1,925	1,979	2,068
1919 ² ...	38,495	1934...	42,270	1949...	42,978	Yard and sidings	10,210	10,437	10,541	10,639
1920...	38,805	1935...	42,916	1950...	42,979					
1921...	39,191	1936...	42,552	1951...	42,956	Grand Totals..	56,701	57,831	57,997	58,150

¹ As at June 30 for this and previous years.

² As at Dec. 31 for this and later years.

Construction of the Newfoundland Railway was begun in 1881 but it was not until 1896, after many difficulties, that the transprovincial line was completed from St. John's to Port aux Basques. The railroad is of narrow gauge track—3'6" compared with the standard gauge of 4'8½" in use in the other provinces. Its operations also include coastal steamer service and a dry dock. The Canadian National Railways took over the operation of the Newfoundland railway facilities on Apr. 1, 1949, thus adding about 4,200 personnel to its payroll.

There has been a tendency for railway mileages to decline slightly during the past decade because of the abandonment of unprofitable lines. Of the 42,956 miles of single track operated in 1951, over 50 p.c. were Canadian National Railway lines.

Rolling-Stock.—The figures in Table 2 may be supplemented by the statement that, between 1920 and 1951, the average capacity of box cars increased from 34·779 tons to 44·166 tons, of flat cars from 33·459 to 43·269 tons, of coal cars from 43·404 tons to 59·579 tons, and of all freight cars from 35·141 tons to 45·961 tons. The average tractive power of the locomotive increased from 31,112 lb. in 1920 to 42,488 lb. in 1951. The steady growth in dieselization is illustrated by the advance from 29 units at the end of 1946 to 574 units for 1951.

2.—Rolling-Stock of Steam Railways, as at Dec. 31, 1946-51

Rolling-Stock	1946	1947	1948	1949 ¹	1950	1951
	No.	No.	No.	No.	No.	No.
Locomotives						
Steam—						
Coal burning.....	4,387	4,364	4,424	4,351	3,730	3,553
Oil burning.....	2	2	2	2	542	555
Diesel electric.....	29	54	62	246	350	574
Electric.....	34	33	34	30	33	33
Totals, Locomotives.....	4,450	4,451	4,520	4,627	4,655	4,715
Passenger Cars						
First class.....	1,947	1,923	1,953	1,996	2,043	2,169
Second class.....	230	183	173	177	168	
Combination.....	354	361	343	337	337	339
Immigrant.....	378	355	353	347	333	315
Dining.....	197	185	185	195	196	196
Parlour.....	160	173	175	175	176	153
Sleeping ²	770	762	758	775	795	803
Baggage, express and postal.....	1,634	1,619	1,677	1,766	1,808	2,201
Motor-cars.....	64	64	60	54	52	49
Other.....	407	405	406	402	430	141
Totals, Passenger Cars³.....	6,141	6,030	6,083	6,224	6,338	6,366
Freight Cars						
Box.....	116,809	119,589	123,539	124,651	122,419	127,714
Flat.....	10,868	10,453	10,314	10,951	11,263	11,062
Stock.....	6,382	6,277	6,115	6,648	6,655	6,509
Coal.....	20,938	21,618	23,431	25,658	25,343	25,412
Tank.....	358	354	352	454	469	460
Refrigerator.....	6,467	6,673	7,240	7,921	8,050	8,231
Other.....	1,523	1,487	1,382	1,331	1,398	1,337
Totals, Freight Cars.....	163,345	166,451	172,373	177,614	175,597	180,725

¹ Includes 46 steam and 3 diesel locomotives, 98 passenger cars and 1,004 freight cars in service in Newfoundland District. ² Included with coal burning. ³ Includes Pullman Company cars in Canadian service.

Subsection 2.—Finances

The tables in this Subsection deal with capital liability, capital investment, earnings, operating expenses, employees and their earnings, and Government aid to steam railways. The financial statistics of the Government-owned railways are given in Subsection 4. Further statistics of revenue are included in Table 9, and are shown in relation to traffic. Statistics of individual railways, covering single-track mileage, capital, earnings and operating expenses, may be found in the annual reports, *Statistics of Steam Railways of Canada*, published by the Dominion Bureau of Statistics.

Capital Liability.—After 1922 an increase in the capital liability of the steam railways of Canada took place owing to the inclusion of all Government loans to railways and investment in road and equipment of Government railways as

part of the capital liability of the railways. The reduction after 1937 was brought about by the Canadian National Capital Revision Act (c. 22, 1937), explained at p. 644 of the 1939 Year Book.

3.—Capital Liability¹ of Steam Railways, 1932-51

NOTE.—Figures for the years 1876 to 1925, inclusive, are given in the 1927-28 Year Book, p. 649, those for 1926-31 in the 1947 edition, p. 662.

Year	Stocks	Funded Debt	Total	Year	Stocks	Funded Debt	Total
	\$	\$	\$		\$	\$	\$
1932...	1,437,489,430	2,934,182,332	4,371,671,762	1942...	1,578,254,765	1,793,579,270	3,371,834,035
1933...	1,438,834,552	2,951,690,468	4,390,525,020	1943...	1,614,936,131	1,741,664,036	3,356,600,167
1934...	1,437,334,152	2,966,505,594	4,403,839,746	1944...	1,636,064,822	1,707,801,676	3,343,866,498
1935...	1,433,849,530	3,026,414,779	4,460,264,309	1945...	1,631,973,055	1,701,786,899	3,333,759,954
1936...	1,425,193,791	3,062,411,720	4,487,605,511	1946...	1,624,753,709	1,665,844,138	3,290,597,847
1937...	1,839,619,361	1,534,450,789	3,374,070,150	1947...	1,623,607,219	1,685,010,672	3,308,617,891
1938...	1,836,882,650	1,568,269,672	3,405,152,322	1948...	1,578,057,474	1,672,282,030	3,250,339,504
1939...	1,834,329,209	1,533,373,521	3,367,702,730	1949...	1,576,734,292	1,692,898,968	3,269,633,260 ²
1940...	1,762,473,489	1,617,561,683	3,380,035,172	1950...	1,649,462,088	1,826,346,222	3,475,808,310 ²
1941...	1,697,545,699	1,699,942,865	3,397,488,564	1951...	1,646,205,772	1,925,488,160	3,571,693,932 ²

¹ Does not include Canadian railway capital owned by Canadian railways.

² Assumption of

approximately \$40,000,000 railways debt in Newfoundland is not included.

Capital Investment.—The increase of \$95,885,622 in capital liability during 1951 from 1950, as shown in Table 3, compares with an increase in investments in road and equipment of \$156,254,921 as shown in Table 4 and reflects improvements made during the year. The investment account in recent years has been affected by write-offs for lines abandoned, transfers of property to other Government Departments, etc., as well as by higher gains in earnings during the war years.

4.—Capital Invested in Road and Equipment of Steam Railways, 1946-51

Investment	1946	1947	1948	1949 ¹	1950	1951
	\$	\$	\$	\$	\$	\$
New Lines—						
Road.....	3,376,385	1,071,411	1,415,132	1,428,972	6,285,165	6,301,717
Equipment.....	136,196	465,476	66,694	—	—	1,552,117
General.....	—	—	—	33,409	50,634	53,901
Totals.....	3,512,581	1,536,887	1,481,826	1,462,381	6,335,799	7,907,735
Additions and betterments—						
Road.....	20,639,010	14,774,509	21,725,599	25,643,350	25,523,673	42,260,214
Equipment.....	14,582,489	39,848,412	85,736,595	75,393,226	52,666,164	107,478,591
General.....	123,029	48,404	59,483	7,175	54,058	70,318
Undistributed.....	Cr. 2,072	Cr. 450	Cr. 2,984	Cr. 3,494	Cr. 3,399	Cr. 2,381
Totals.....	35,342,456	54,670,875	107,399,727	101,025,907	78,247,294	149,666,106
Undistributed ²	Cr. 5,883,298	Cr. 871,376	79,157,303	261,234	Cr. 2,645,822	Cr. 1,318,920
Totals, Investments as at Dec. 31.....	3,355,712,911	3,411,979,297	3,600,018,153	3,702,767,675	3,784,704,946	3,940,959,867

¹ Includes expenditure for Newfoundland railways from Apr. 1 to Dec. 31.

² Details of this item are given in the annual report, *Statistics of Steam Railways of Canada*, issued by the Public Finance and Transportation Division of the Dominion Bureau of Statistics.

Earnings and Expenses.—The operating ratio, or ratio of expenditure to revenue, of Canadian railways increased from about 70 p.c. to over 90 p.c. between 1917 and 1920, and remained high thereafter, owing largely to declining revenue without corresponding reductions in expenses during the depression period. The period from 1938 to 1943 showed a sharp decline in this ratio, caused primarily by increased freight traffic occasioned by World War II and a subsequent acceleration in gross earnings. A steadily rising trend since 1943 has been attributed to higher costs for materials and labour, although a decided reversal was shown for 1950 despite the nine day strike in late August. Expenses for 1951 show a considerable increase over the previous year accounted for by the wage increases received as a result of the strike settlement.

5.—Earnings and Operating Expenses of Steam Railways, 1942-51

NOTE.—Gross earnings and operating expenses for the years 1875 to 1914 are given in the 1916-17 Year Book, p. 434; those for 1915-25 in the 1941 Year Book, p. 550; for 1926-38 in the 1942 Year Book, p. 585; and for 1940-41 in the 1951 Year Book, p. 722.

Year	Gross Earnings	Operating Expenses	Ratio of Expenses to Receipts	Per Mile of Line			Freight Train Revenue per Freight Train Mile	Passenger Train Revenue per Passenger Train Mile
				Gross Earnings	Operating Expenses	Net Earnings		
	\$	\$	p.c.	\$	\$	\$	\$	\$
1942.....	663,610,570	485,783,584	73.20	15,659	11,463	4,196	6.53	2.93
1943.....	778,914,565	560,597,204	71.98	18,398	13,241	5,157	6.98	3.68
1944.....	796,636,786	634,774,021	79.68	18,861	15,029	3,832	6.91	3.82
1945.....	774,971,360	631,497,562	81.49	18,331	14,937	3,394	6.92	3.70
1946.....	718,501,764	623,529,472	86.79	16,967	14,724	2,243	6.83	3.21
1947.....	785,177,920	690,821,047	87.98	18,556	16,326	2,230	7.38	3.01
1948.....	875,832,290	808,126,455	92.27	20,702	19,102	1,600	8.38	2.92
1949 ¹	894,397,264	831,456,446	92.96	20,866	19,398	1,469	8.66	3.10
1950.....	958,985,751	833,726,562	86.94	22,311	19,397	2,914	9.45	3.19
1951.....	1,088,583,789	977,577,062	89.80	25,348	22,763	2,585	10.05	3.36

¹ Includes Newfoundland railways from Apr. 1.

6.—Distribution of Operating Expenses of Steam Railways, 1948-51

Item	1948		1949 ¹		1950		1951	
	\$	p.c.	\$	p.c.	\$	p.c.	\$	p.c.
Way and structures.....	159,963,352	19.8	164,891,364	19.8	163,998,704	19.7	202,490,988	20.7
Equipment.....	174,473,389	21.6	186,067,026	22.4	189,507,197	22.7	224,184,671	22.9
Traffic.....	16,801,286	2.1	17,612,056	2.1	18,591,724	2.2	19,958,080	2.1
Transportation.....	403,804,530	49.9	406,033,445	48.8	403,994,207	48.5	468,653,237	47.9
General and miscellaneous.	53,083,898	6.6	56,852,555	6.9	57,634,730	6.9	62,290,086	6.4
Totals.....	808,126,455	100.0	831,456,446	100.0	833,726,562	100.0	977,577,062	100.0

¹ Includes Newfoundland railways from Apr. 1.

Employment and Salaries and Wages.—The number of railway employees increased in 1951 by 58 p.c. over 1939 while salaries and wages increased by about 212 p.c. Maintenance of equipment employees, on hourly rates, worked about 2 p.c. more hours and were paid 101 p.c. more wages per hour; average hours worked by transportation employees were slightly less than the 1939 average and their pay was increased by about 94 p.c. These figures reflect the increases received in the strike settlement in August 1950, and the conversion to the five-day week in 1951.

7.—Steam Railway Employees and Salaries and Wages, 1942-51

NOTE.—Figures for the years 1912-39 are given in the 1941 Year Book, p. 551; and for 1940-41 in the 1951 Year Book, p. 723.

Year	Employees ¹	Total Salaries and Wages ¹	Average Salaries and Wages	Ratio of Operating Salaries and Wages Chargeable to Operation Expenses to—	
				Gross Earnings	Operating Expenses
	No.	\$	\$	p.c.	p.c.
1942.....	157,740	291,416,755	1,847	39.6	54.1
1943.....	169,663	323,801,645	1,908	37.8	52.5
1944.....	175,095	372,064,613 ²	2,125	42.9	53.8
1945.....	180,603	371,814,379	2,059	43.8	53.7
1946.....	180,383	396,856,901	2,200	50.2	57.8
1947.....	184,415	429,843,142	2,331	49.9	56.7
1948.....	189,963	512,054,795	2,696	53.0	57.5
1949 ³	192,366	523,453,375	2,721	52.9	56.9
1950.....	190,385	523,008,515	2,747	49.8	57.2
1951.....	204,025	624,682,754	3,062	52.0	58.0

¹ Figures include employees or wages for "outside operations" amounting to from 3 p.c. to 6 p.c. of total employees and from 2 p.c. to 5 p.c. of total salaries and wages. ² Includes approximately \$10,000,000 in wages earned in 1943. ³ Includes Newfoundland railways from Apr. 1.

Government Aid to Railways.—In order that the private railways of Canada might be constructed in advance of settlement, as colonization roads, or through sparsely settled districts where little traffic was available, it was necessary for Federal and Provincial Governments and even for municipalities to extend some form of assistance. The form of aid was, generally, a bonus of a fixed amount per mile of railway constructed and, in the early days, grants of land were also made other than for right-of-way.

As the country developed, the objections to the land-grant method became more apparent and aid was given more frequently in the form of a cash subsidy per mile of line, a loan or a subscription to the shares of the railway. Guarantees of debenture issues were given in a later period and, since the formation of the Canadian National Railways, all debenture issues of that System, except those for rolling-stock, have been guaranteed by the Federal Government. No new land grants or cash subsidies have been advanced by either the Federal or Provincial Governments since 1939. The situation, as it existed at Dec. 31, 1940, is set out in the 1942 Year Book, pp. 587-588.

During the era of railway expansion before 1918, Provincial Governments guaranteed the bonds of some railway lines that afterwards were incorporated in the Canadian National Railway System. These bonds as they mature or are called are paid off by the Canadian National Railways, in large measure, through funds raised by the issue of new bonds with Federal Government guarantee. Bonds guaranteed by the Governments of Ontario, Manitoba, Saskatchewan, Alberta and British Columbia have been eliminated in this manner in recent years.

8.—Railway Bonds Guaranteed by Federal and Provincial Governments, as at Dec. 31, 1951

Government	Canadian National	Other Railways	Total
	\$	\$	\$
Provincial Governments—			
New Brunswick.....	—	465,000	465,000
Federal Government.....	537,577,152	—	537,577,152
Totals.....	537,577,152	465,000	538,042,152¹

¹ Does not include \$6,984,883 perpetual debenture stock and guaranteed stock of the former Grand Trunk Railway, now part of the Canadian National Railway System, on which interest and dividends are guaranteed by the Federal Government.

Subsection 3.—Traffic

Passenger and Freight Traffic.—Table 9 shows the passenger and freight statistics for all steam railways for the years 1942-51. A separate analysis is given at pp. 754-756 of the operations and traffic of the Canadian National Railways, since this System is controlled by the Federal Government.

9.—Statistics of Passenger and Freight Services and Revenue Receipts, 1942-51

NOTE.—Figures for 1910-41 are given in the corresponding tables of previous Year Books.

Year	PASSENGER				
	Revenue Passenger-Train Miles ¹	Passenger-Train Car Miles ¹	Passengers Carried ²	Passengers Carried One Mile	Passengers Carried One Mile per Mile of Line
	No.	No.	No.	No.	No.
1942.....	43,271,994	395,118,691	47,596,602	4,989,295,894	117,728
1943.....	45,745,039	433,828,200	57,175,840	6,525,064,000	154,122
1944.....	46,575,706	450,042,986	60,335,950	6,873,188,000	162,729
1945.....	47,067,607	447,822,527	53,407,845	6,380,155,000	150,917
1946.....	45,700,856	415,890,589	43,405,177	4,648,558,000	109,773
1947.....	45,367,725	398,646,636	40,941,387	3,732,777,000	88,218
1948.....	46,101,568	410,689,409	38,279,981	3,477,273,000	82,193
1949.....	45,680,009	407,421,229	34,883,803	3,193,174,337	74,497
1950 ³	43,744,164	392,800,555	31,139,092	2,816,154,232	65,519
1951 ³	46,200,947	415,178,734	30,995,604	3,110,240,504	72,424
	Average Receipts per Passenger Mile	Average Receipts per Passenger	Average Passenger Journey	Average Passengers per Train	Passenger-Train Revenue per Passenger-Train Mile
	cts.	\$	miles	No.	\$
1942.....	1.83	1.92	105	115	2.93
1943.....	1.90	2.16	114	143	3.68
1944.....	1.92	2.18	114	148	3.82
1945.....	1.96	2.34	120	136	3.70
1946.....	2.15	2.30	107	102	3.21
1947.....	2.35	2.14	91	82	3.01
1948.....	2.40	2.18	91	75	2.92
1949.....	2.66 ³	2.44 ³	92 ³	69	3.05
1950 ³	2.79	2.52	90	64	3.19
1951 ³	2.86	2.87	100	67	3.36

For footnotes, see end of table.

9.—Statistics of Passenger and Freight Services and Revenue Receipts, 1942-51—
concluded

Year	FREIGHT					
	Revenue Freight- Train Miles	Revenue Freight- Train Car Miles ⁴	Freight Carried ⁵	Freight Carried One Mile	Freight Carried One Mile per Mile of Line	
	No.	No.	tons	tons	tons	
1942.....	77,080,637	2,968,594,473	134,674,537	56,153,953,000	1,325,011	
1943.....	81,443,279	3,132,419,669	153,314,264	63,915,074,000	1,509,674	
1944.....	83,564,629	3,297,475,933	155,326,332	65,928,078,000	1,560,908	
1945.....	80,712,589	3,189,311,345	147,348,566	63,349,095,000	1,498,465	
1946.....	77,794,963	2,973,411,653	139,256,125	55,310,308,000	1,306,121	
1947.....	82,377,565	3,176,646,828	152,855,820	60,143,035,000	1,421,384	
1948.....	83,398,617	3,120,704,440	154,932,804	59,080,323,000	1,396,500	
1949.....	81,648,053	3,091,633,447	142,719,431 ¹	56,338,230,000 ²	1,314,379 ³	
1950 ³	81,397,148	3,093,946,961	144,218,319	55,537,900,000	1,292,120	
1951 ³	87,181,640	3,384,341,192	161,260,521	64,300,418,000	1,497,274	
	Freight Receipts per Ton per Mile	Receipts per Ton Hauled	Average Length of Freight Haul	Average Train Load, Revenue Tons	Average Load per Loaded Car Mile	Revenue per Freight- Train Mile
	cts.	\$	miles	tons	tons	\$
1942.....	0.896	3.74	417	729	30.71	6.53
1943.....	0.890	3.71	417	785	32.75	6.98
1944.....	0.876	3.72	424	789	32.70	6.91
1945.....	0.882	3.79	430	785	32.57	6.92
1946.....	0.961	3.82	397	711	29.95	6.83
1947.....	1.009	3.98	393	730	30.23	7.38
1948.....	1.183	4.51	381	708	30.16	8.38
1949.....	1.256 ³	4.96 ³	395 ³	689	29.65	8.62
1950 ³	1.385	5.33	385	682	28.91	9.45
1951 ³	1.362	5.43	399	733	30.61	10.05

¹ Includes express, baggage, mail and other cars.
Newfoundland.

² Duplications included.

³ Includes

⁴ Includes caboose miles but excludes miles made in passenger and non-revenue trains.

⁵ Duplications eliminated; see Table 10 for details of freight carried.

Commodities Hauled.—Revenue freight carried by the railways in 1951 showed an increase of 12.2 p.c. over 1950 and exceeded the previous peak volume reached in 1944. The average haul increased from 385 miles in 1950 to 399 miles in 1951 with a corresponding increase in ton miles. The principal commodities showing increase over 1951 were wheat, coke, ores and concentrates, sand and gravel and stone. Lumber, timber and pulpwood moved in heavier volume while most items in the manufactured and miscellaneous group registered improvement. During the war years the intransit movement of war supplies, motor-vehicles, and gasoline and petroleum products between United States points over Canadian lines was particularly heavy and, with wheat, was responsible for the 1944 record.

10.—Commodities hauled as Freight on Steam Railways, 1947-51

NOTE.—In this table duplications are eliminated, i.e., the same freight handled by two or more railways is counted only once. The statistics do not include the United States lines of the Canadian National Railways, but the link of the Canadian Pacific Railway line across Maine, U.S.A., is included, as are the Canadian sections of United States railways.

Commodity Group and Product	1947	1948	1949 ¹	1950	1951
	tons	tons	tons	tons	tons
Agricultural Products					
Wheat.....	12,888,800	11,221,579	12,861,460	10,180,638	15,444,631
Oats.....	2,929,287	2,356,099	2,523,349	1,998,361	2,679,391
Other grain.....	4,836,652	4,514,027	4,195,518	3,430,079	4,709,796
Flour.....	2,929,758	2,802,510	2,012,513	1,996,281	2,222,861
Other mill products.....	3,662,558	2,853,657	2,463,699	2,479,974	2,565,747
Other agricultural products.....	4,833,258	4,408,579	4,233,782	4,290,525	4,122,972
Totals, Agricultural Products.....	32,080,323	27,656,451	28,290,321	24,375,858	31,739,398
Animal Products					
Live stock.....	1,059,086	1,153,196	976,565	907,046	759,169
Meats and other edible packing-house products.....	960,855	942,278	894,266	764,040	815,267
Other animals products.....	873,652	793,995	668,644	631,139	621,891
Totals, Animal Products.....	2,893,593	2,889,469	2,539,475	2,302,225	2,196,327
Mine Products					
Coal, anthracite.....	5,001,377	5,675,849	4,099,390	4,481,323	4,110,389
Coal, bituminous.....	14,705,645	16,587,478	13,946,461	15,058,571	14,505,205
Coal, sub-bituminous.....	2,541,982	2,426,229	2,340,378	2,400,271	2,151,652
Coal, lignite.....	1,223,106	1,272,774	1,521,762	1,787,973	1,802,473
Coke.....	1,967,287	2,141,063	1,805,620	1,899,872	2,223,652
Ores and concentrates.....	9,901,768	11,187,732	11,715,952	12,312,946	13,284,529
Base bullion, matte, pig and ingot (non-ferrous metals).....	1,291,728	1,457,668	1,330,464	1,427,581	1,446,910
Sand and gravel.....	3,210,425	3,556,854	3,118,677	3,582,966	3,900,617
Stone (crushed, ground, broken).....	2,942,111	2,989,724	2,629,652	2,788,301	3,486,464
Other mine products.....	8,439,367	9,437,571	9,233,094	10,008,616	9,143,215
Totals, Mine Products.....	51,224,796	56,732,942	51,741,450	55,748,420	56,055,106
Forest Products					
Logs, posts, poles, piling.....	1,639,274	1,582,800	1,439,447	1,350,064	1,832,259
Cordwood and other firewood.....	799,174	623,070	457,848	440,306	355,213
Pulpwood.....	7,860,080	8,995,154	6,555,770	5,521,412	9,970,231
Lumber, timber, box, crate and cooperage material.....	7,797,668	7,514,232	6,418,854	7,778,428	7,867,659
Other forest products.....	740,954	727,113	724,479	740,129	810,555
Totals, Forest Products.....	18,837,150	19,442,369	15,596,398	15,830,339	20,835,917
Manufactures and Miscellaneous					
Gasoline and petroleum products.....	5,585,708	5,670,944	5,806,468	6,226,127	6,722,065
Iron and steel (bar, sheet, structural pipe).....	2,808,025	2,989,652	2,720,250	2,633,274	3,501,728
Automobiles, trucks and parts.....	2,210,709	2,162,322	2,102,622	2,517,930	2,456,566
Newsprint.....	3,825,252	3,809,313	3,747,561	3,844,113	4,056,679
Wood-pulp.....	2,217,307	2,311,901	1,791,868	2,311,057	2,750,103
Other manufactures and miscellaneous.....	26,790,201	27,160,763	24,770,961	25,099,776	27,725,675
Merchandise (all L.C.L. freight) ²	4,382,756	4,106,678	3,612,057	3,329,200	3,220,957
Totals, Manufactures and Misc.....	47,819,958	48,211,573	44,551,787	45,961,477	50,433,773
Grand Totals.....	152,855,820	154,932,804	142,719,431	144,218,319	161,260,521

¹ Figures include Newfoundland from Apr. 1.

² Less than carload lots.

Railway Accidents.—In Tables 11 and 12 all passengers injured are included in the figures but for employees only injuries are recorded that keep the employee from his work for at least three days during the ten days following the accident.

11.—Passengers, Employees and others Killed or Injured on Steam Railways, 1942-51

NOTE.—Figures for 1919-41 are given in the corresponding tables of previous Year Books beginning with the 1922-23 edition.

Year	Passengers		Employees		Others ¹		Totals	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.	No.	No.
1942.....	44	779	120	10,008	279	743	443	11,530
1943.....	9	546	130	12,667	202	706	341	13,919
1944.....	8	562	103	13,187	242	630	353	14,379
1945.....	10	499	98	13,147	246	705	354	14,351
1946.....	3	526	105	11,406	219	706	327	12,638
1947.....	35	464	103	10,620	262	755	400	11,839
1948.....	15	351	99	9,980	271	825	385	11,156
1949 ²	1	316	71	8,794	257	824	329	9,934
1950.....	18	297	67	8,108	232	744	317	9,149
1951.....	5	221	84	7,651	301	723	390	8,595

¹ Includes trespassers walking along tracks, stealing rides, etc., and persons crossing tracks at level crossings. ² Includes Newfoundland from Apr. 1.

Accidents tabulated include all those in which railway trains were involved and accidents on railway property. The classification of accidents used in the Dominion Bureau of Statistics vital statistics treats collisions between motor-vehicles and trains as motor-vehicle accidents; provincial statistics also class them as motor-vehicle accidents and, consequently, adjustments should be made when compiling total accidental deaths of all kinds or comparing results of accidents of different kinds, such as train and motor-vehicle.

12.—Persons Killed or Injured, by Specified Causes, on Steam Railways, 1949-51

Class of Person and Description of Accident	1949 ¹		1950		1951	
	Killed	Injured	Killed	Injured	Killed	Injured
ACCIDENTS RESULTING FROM MOVEMENT OF TRAINS, LOCOMOTIVES OR CARS						
Class of Person—	No.	No.	No.	No.	No.	No.
Passengers.....	1	268	18	262	4	191
Employees.....	52	2,418	54	2,244	69	2,341
Trespassers.....	85	101	81	82	77	83
Non-trespassers.....	162	522	146	484	209	493
Postal clerks, expressmen, etc.....	2	16	—	26	3	19
Totals.....	302	3,325	299	3,093	362	3,127
Description of Accidents (Employees and Passengers only)—						
Coupling and uncoupling.....	3	118	2	103	7	103
Collisions.....	13	207	37	263	21	166
Derailments.....	7	47	5	35	7	54
Locomotives or cars breaking down....	—	2	1	3	1	4
Falling from trains or cars.....	4	124	5	100	5	157
Getting on or off trains.....	2	619	2	507	3	542
Struck by trains, etc.....	18	53	15	51	21	53
Overhead and other obstruction.....	1	29	1	28	—	32
Other causes.....	5	1,487	4	1,416	8	1,421
Totals.....	53	2,686	72	2,506	73	2,532
ALL OTHER ACCIDENTS						
Class of Person—	No.	No.	No.	No.	No.	No.
Stationmen.....	3	772	1	756	1	773
Shopmen.....	4	2,440	6	2,218	4	1,885
Trackmen.....	11	2,434	2	2,266	7	1,993
Other employees.....	1	730	4	624	3	659
Passengers.....	—	48	—	35	1	30
Others.....	8	185	5	152	12	128
Totals.....	27	6,609	13	6,051	28	5,468

¹ Includes Newfoundland from Apr. 1.

Subsection 4.—The Canadian National Railway System

A description of the origin and growth of Government-owned railways in Canada is given in the 1926 Year Book, pp. 601-603, in an article recording their consolidation under the Canadian National Railways in 1923. The Hudson Bay Railway is a direct liability of the Federal Government and has been operated by the Canadian National Railways for the Government since Apr. 1, 1935, but is not included in the data for Canadian National Railways; to Mar. 31, 1950, the total capital expenditure on this account was \$33,439,357, exclusive of the expenditure of \$6,240,096 on the terminal at Port Nelson, Man., and a loss of \$4,980,185 on operation. The operating deficit for the fiscal year 1949-50 was \$197,193.

On Apr. 1, 1949, the Canadian National Railways took over the operation of the Newfoundland Railway embracing its 705 miles of line, 14 coastal steamers and a dry dock at St. John's; communications services of the Newfoundland Government Posts and Telegraphs were also transferred for operation to the Canadian National Railways. (The Newfoundland Hotel was consigned towards the end of the year.)

Effective Jan. 1, 1950, the Canadian National Railways took over the operation of the Témiscouata Railway which was purchased by the Government in 1949, thus adding about 69 miles of line.

The Quebec Railway, Light and Power Company (Montmorency Division), having 25.7 miles of single track was purchased and incorporated as part of the System, Nov. 1, 1951.

The major portion of Federal Government investment in railways consists of construction costs of the Intercolonial System, the National Transcontinental Railway and the Hudson Bay Railway, and the purchase price of small railways in the Eastern Provinces.

In view of the interest in the publicly owned railway System, the following salient statistics are presented showing the assets, debt, operating accounts, mileage and traffic for the Canadian National Railway System. More detail is available from the D.B.S. report *Canadian National Railways, 1923-51*.

13.—Assets of the Canadian National Railway System, as at Dec. 31, 1922 and 1951

Account	Dec. 31, 1922	Dec. 31, 1951	Increase or Decrease
	\$	\$	\$
Investments—			
Road and equipment.....	1,765,323,644	2,245,260,580	+479,936,936
Improvements on leased railway property.....	1,492,123	1,097,308	—394,815
Sinking funds.....	4,629,855	—	—4,629,855
Deposits in lieu of mortgaged property sold.....	6,171,808	8,338,027	+2,166,219
Miscellaneous physical property.....	34,767,914	65,523,665	+30,755,751
Affiliated companies.....	24,253,323	53,119,620	+28,866,297
Other investments.....	5,789,464	1,020,618	—4,768,846
Totals, Investments.....	1,842,428,131	2,374,359,818	+531,931,687
Current Assets—			
Cash.....	14,651,422	23,179,918	+8,528,496
Special deposits.....	6,139,435	5,293,620	—845,815
Loans and bills receivable.....	11,600	—	—11,600
Traffic and car service, balances receivable.....	2,528,622	—	—2,528,622

For footnote, see end of table.

13.—Assets of the Canadian National Railway System, as at Dec. 31, 1922 and 1951— concluded

Account	Dec. 31, 1922	Dec. 31, 1951	Increase or Decrease
	\$	\$	\$
Current Assets—concluded			
Net balances receivable from agents and conductors.	5,386,673	26,057,142	+20,670,469
Miscellaneous accounts receivable.	16,857,420	20,013,595	+3,156,175
Materials and supplies.	41,408,999	93,791,107	+52,382,108
Interest and dividends receivable.	377,003	80,578	-296,425
Rents receivable.	112,269	—	-112,269
Other current assets.	106,775	6,198,159	+6,091,384
Totals, Current Assets.	87,580,218	174,614,119	+87,033,901
Deferred Assets—			
Working fund advances.	166,847	487,841	+320,994
Insurance and other funds.	352,488	13,583,257	+13,230,769
Pension contract fund.	—	59,700,000	+59,700,000
Other deferred assets.	11,805,962	2,798,918	-9,007,044
Totals, Deferred Assets.	12,325,297	76,570,016	+64,244,719
Unadjusted Debits—			
Rents and insurance premiums paid in advance.	322,059	953,094	+631,035
Discount on capital stock.	634,960	—	-634,960
Discount on funded debt.	1,919,635	3,549,598	+1,629,963
Other unadjusted debits.	12,820,903	3,838,739	-8,982,164
Totals, Unadjusted Debits.	15,697,557	8,341,431	-7,356,126
Grand Totals.	1,958,031,203	2,633,885,384	+675,854,181

¹ Includes demand loans and deposits.
Federal Government.

² Includes 1951 deficit of \$15,031,996 receivable from
³ Increase in current liabilities \$12,204,167.

Capital Structure and Debt.—The share capital on Dec. 31, 1922, consisted of \$165,627,739 stock of the Grand Trunk Railway held by the Federal Government and \$100,000,600 of the Canadian Northern Railway stock also held by the Federal Government. Also outstanding was \$4,591,975 stock of constituent lines held by the public. Table 14 shows the capital liabilities of the Canadian National Railways, other than shareholders' capital. The amounts shown under "Active Assets" represent, largely, temporary loans and explain the large increases during the war years.

14.—Debt of the Canadian National Railway System, as at Dec. 31, 1942-51

NOTE.—Figures for the years 1922-39 are given at p. 591 of the 1942 Year Book; for 1940-41 see p. 730 of the 1951 edition.

At Dec. 31—	Funded Debt Held by Public			Government Loans and Advances— Active Assets in Public Accounts	Appropriations for Canadian Government Railways ¹	Grand Totals ²
	Guaranteed by—		Un- guaranteed			
	Federal Government	Provincial Governments				
	\$	\$	\$	\$	\$	\$
1942	741,896,436	4,718,822	62,600,816	502,856,461	16,771,981	2,028,137,130
1943	685,290,925	2,786,056	56,155,492	537,323,765	16,771,981	2,035,393,793
1944	576,585,327	2,702,155	50,166,424	645,103,872	16,771,981	2,050,695,085
1945	525,688,314	2,586,932	44,904,751	674,201,613	16,771,981	2,046,123,159
1946	486,820,210	1,952,108	41,650,680	701,765,305	16,771,981	2,029,614,299
1947	536,807,069	1,952,108	44,100,585	672,698,368	16,771,981	2,051,096,952
1948	490,485,399	1,952,108	91,795,151	743,722,844	16,771,981	2,123,537,672
1949	537,756,899	1,949,845	85,159,176	726,889,181	16,771,981	2,147,536,088
1950	566,418,607	—	92,611,634	723,075,533	16,771,981	2,179,794,294
1951	518,396,607	—	96,800,428	840,801,793	16,771,981	2,253,685,348

¹ Working capital, the remainder of the account being eliminated (see p. 591 of the 1942 Year Book).

² Includes Federal Government Proprietors Equity and capital stock held by the public; for details see D.B.S. report, *Canadian National Railways*.

Operating Finances.—Gross revenue, operating expenditure and net revenue include only those from steam railway and commercial telegraph operations, but the deficits are for the entire System, including the operating results of the Niagara, St. Catharines and Toronto Railway (electric) and other railways operated separately, hotels, commercial telegraphs, coastal steamships and all other outside operations.

Under the Canadian National Railways Capital Revision Act (c. 22, 1937), interest on Federal Government loans, amounting to \$530,832,598, and Government claims for interest, amounting to \$43,949,039, were cancelled as liabilities of the Railway and these have been eliminated from Table 15 as fixed charges. Loans of \$270,037,438 for capital and \$373,823,120 for deficits were cancelled.

15.—Gross Revenue, Operating Expenditure, Net Revenue, Fixed Charges and Deficits of the Canadian National Railway System,¹ 1942-51

NOTE.—Appropriations, etc., for the Hudson Bay Railway are not included with these data; although the Railway was returned to the Government while under construction, it is not now a part of the Canadian National Railways. Figures for 1911-25 are given in the 1936 Year Book, p. 660; for 1926-39 in the 1942 Year Book, p. 590; and for 1940-41 in the 1951 edition, p. 731.

Year	Gross Operating Revenue	Operating Expenditure	Income Available for Fixed Charges	Total Fixed Charges	Net Income Deficit ²	Cash Deficit
	\$	\$	\$	\$	\$	\$
1942.....	375,654,544	288,998,675	78,952,433	51,669,935	Cr. 27,282,498	Cr. 25,063,268
1943.....	440,615,954	324,475,669	87,859,084	52,189,536	Cr. 35,669,548	Cr. 35,639,412
1944.....	441,147,510	362,547,044	73,473,733	50,474,480	Cr. 22,999,253	Cr. 23,026,924
1945.....	433,773,394	355,294,048	73,521,185	49,009,507	Cr. 24,511,678	Cr. 24,756,130
1946.....	400,586,026	357,236,718	37,239,784	46,685,316	9,445,532	8,961,570 ³
1947.....	438,197,980	397,122,607	29,330,757	45,925,891	16,595,134	15,885,194 ³
1948.....	491,269,950	464,739,970	12,502,931	46,341,727	33,838,796	33,532,741 ³
1949 ⁴	500,723,386	478,501,660	6,152,649	48,631,896	42,479,247	42,043,027 ³
1950.....	553,831,581	493,997,079	44,084,904	47,421,983	3,337,079	3,261,235
1951.....	624,834,120	580,150,221	31,722,489	48,176,558	16,454,069	15,031,996

¹ Includes the Central Vermont Railway, Inc.

² Includes appropriations for insurance fund and excludes interest on Government loans eliminated by the Capital Revision Act, 1937.

by the Federal Government.

³ Contributed

⁴ Includes Newfoundland from Apr. 1.

Table 16 has been compiled to reconcile the investments in and loans to the Canadian National Railways (including Canadian Government Railways) as shown in the Public Accounts for the years ended Mar. 31, 1950 and 1951, with the debt to the Federal Government shown in the Railways' balance sheet at Dec. 31, 1950, which is covered by Federal Government proprietor's equity, and the columns "Active Assets in Public Accounts" and "Appropriations for Canadian Government Railways" in Table 14.

16.—Reconciliation between the Public Accounts, Mar. 31, 1950 and 1951, and the Balance Sheet of the Canadian National Railway System,¹ Dec. 31, 1950

Item	Public Accounts Mar. 31, 1950	Public Accounts Mar. 31, 1951	Canadian National Balance Sheet Dec. 31, 1950
	\$	\$	\$
Canadian Government Railways—			
Capital expenditure.....	379,976,555	380,846,166	379,877,514
Working capital.....	16,771,980	16,771,980	16,771,980
Canadian National Railways—			
Federal Government equity:			
Canadian National Railways capital stock.....	18,000,000	18,000,000	18,000,000
Canadian National Railways securities trust stock.....	378,518,135	378,518,135	378,518,135
Temporary Loans.....	725,327,515	746,945,543	723,075,534
Miscellaneous investments—Grand Trunk Railway stock purchased prior to Confederation—not shown in Canadian National Railways balance sheet....	121,740	121,740	—
Transactions between Dec. 31, 1949, and Mar. 31, 1950:			
Advanced by Federal Government.....	8,043,027	3,261,236	3,261,236
Additional temporary loans not shown in Canadian National Railways balance sheet.....	—	—	23,870,009
Expenditure by Federal Government not in Canadian National Railways balance sheet—			
Grand Trunk Railways stock purchased prior to Confederation.....	—	—	121,740
Canadian Government Railways—Capital expend- iture.....	—	—	968,652
Totals.....	1,526,758,952	1,544,464,800	1,544,464,800

¹ Includes Canadian Government Railways.

Mileage and Traffic.—At Dec. 31, 1951, steam-railway track mileage of the Canadian National Railways (including lines in the United States and Newfoundland but exclusive of the Northern Alberta Railways and Toronto Terminals Railway, which are controlled jointly by the Canadian National and the Canadian Pacific Railways) was 24,273.4 miles. Including the Thousand Islands Railway, 4.51 miles, controlled but operated separately, the total steam-railway mileage was 24,277.9. The grand total, including 72.9 miles of electric lines, was 24,350.8 miles.

17.—Train Traffic Statistics¹ of the Canadian National Railways (Canadian and United States Lines), 1950 and 1951

Mileage and Traffic	1950	1951
Train Mileage—		
Passenger trains.....miles	22,387,001	24,412,847
Freight trains.....“	45,458,577	48,353,158
Totals, Train Miles..... No.	67,845,578	72,766,005
Passenger-Train Car Mileage—		
Coaches and combination.....miles	62,834,796 ²	70,811,169 ²
Motor unit cars.....“	596,160	660,448
Parlour, sleeping and dining cars.....“	59,121,097	62,968,188
Baggage, mail, express, etc.....“	84,312,328	90,041,623
Totals, Passenger-Train Car Miles..... No.	206,864,381	224,481,428

¹ Excludes electric lines.

² Excludes work service.

17.—Train Traffic Statistics¹ of the Canadian National Railways (Canadian and United States Lines), 1950 and 1951—concluded

Mileage and Traffic		1950	1951
Freight-Train Car Mileage—			
Loaded freight-car miles.....	miles	1,226,527,761	1,314,101,690
Empty freight-car miles.....	"	531,072,795	562,171,410
Caboose miles.....	"	45,543,687	48,539,588
Totals, Freight-Train Car Miles.....	No.	1,803,144,243	1,924,812,688
Passenger Traffic—			
Passengers carried (earning revenue).....	No.	16,819,857	17,322,723
Passengers carried (earning revenue) one mile.....	"	1,407,724,037	1,611,153,281
Passenger-train miles per mile of road.....	"	925	1,010
Average passenger journey.....	miles	83.69	93.01
Average amount received per passenger.....	\$	2.37155	2.74066
Average amount received per passenger mile.....	\$	0.02834	0.02947
Average passengers per train mile.....	No.	62.88	66.00
Average passengers per car mile.....	"	12.31	12.82
Total passenger-train earnings per train mile.....	\$	3.50	3.72
Total passenger-train revenue per mile of road.....	\$	3,246.62	3,761.04
Freight Traffic—			
Revenue freight carried.....	tons	81,364,658	89,618,436
Revenue freight carried one mile.....	"	31,988,269,548	36,434,821,058
Revenue freight carried one mile per mile of road.....	"	1,317,500	1,501,578
Total (all classes) freight carried one mile per mile of road.....	"	1,451,268	1,624,019
Average tons revenue freight per train mile.....	No.	704	754
Average tons (all classes) freight per loaded car mile.....	"	28.64	29.88
Average hauls revenue freight.....	miles	393.15	406.55
Freight revenue per train mile.....	\$	9.81	10.32
Freight revenue per mile of road.....	\$	18,429.50	20,632
Freight revenue per ton.....	\$	5.48	5.57
Freight revenue per ton mile.....	\$	0.01394	0.01369

¹ Excludes electric lines.

Section 2.—Electric Railways*

Replacing the horse-car systems, used in Montreal and Toronto as early as 1861, electric street railways were first seen in operation in Canada in 1885, when a successful experimental railway was constructed and operated at the Toronto Exhibition Grounds. Before many years their safety and convenience resulted in the discarding of the older systems. The first electric railway line in Canada, and probably the first in North America, ran between Windsor and Walkerville and was established early in June 1886 (it is recorded that it was in active operation before June 11).

The cheap and reasonably rapid conveyance of human beings is a necessity of modern urban life. In some cities of Eastern Canada, electric street-railways are still operated by private companies under city franchises, while in a considerable number of cities in Ontario and the West the electric railways are owned and operated by the municipalities. The number of electric railways in operation declines each year as motor-buses replace electric trams.

Statistics presented in this Section cover the urban and interurban operations of the electric railway systems.

Equipment.—The single overhead-trolley system is used by all electric street railways. Montreal, Toronto, Winnipeg, Vancouver, Ottawa and several other municipalities have begun to use trackless trolley-buses, 909 of which were in service

* For further details see D.B.S. publication, *Electric Railways of Canada, 1950*.

in 1950. Of the 22 systems, 10 operated electric cars, motor-buses and trolley-buses; four operated trolley-buses and motor-buses; three electric cars only; four electric cars and motor-buses and one system operated trolley-buses only. There were 1,927 motor-buses in service during 1950.

18.—Equipment of Electric Railways, 1948-50

Equipment	1948	1949*	1950	Equipment	1948	1949*	1950
	No.	No.	No.		No.	No.	No.
Passenger Vehicles—				Other Vehicles—			
Closed cars.....	2,961	2,829	2,594	Baggage, express and mail cars.....	17	17	16
Open cars.....	6	6	6	Freight cars.....	118	104	88
Combination passenger and baggage.....	5	6	5	Locomotives.....	56	58	57
Cars without electrical equipment.....	133	130	130	Snow ploughs.....	51	48	53
Motor-buses.....	1,981	1,817	1,927	Sweepers.....	118	104	81
Trackless trolley-buses	518	726	909	Trucks.....	151	150	137
				Miscellaneous.....	212	177	176
Totals, Passenger Vehicles.....	5,604	5,514	5,571	Totals, Other Vehicles.....	723	658	608

Finances.—When electric railways have ceased to operate because of either a decline in traffic or the substitution of motor-buses, their statistics have been excluded from Table 19. Consequently, fluctuations in revenue, etc., have been affected by variations in traffic and by changes in the mode of local transportation. Despite these changing conditions, the gross revenue of electric railways continued to increase from the low point reached in 1933, and very marked increases were shown from 1940 to 1945. The ratio of expenses to receipts rose from a low of less than 63 p.c. in 1942 to 97 p.c. in 1950.

19.—Financial Statistics of Electric Railways, 1941-50

NOTE.—Figures for 1901-40 are given in the corresponding table of previous Year Books beginning with the 1926 edition.

Year	Capital Liability			Investment in Road and Equipment	Gross Earnings	Operating Expenses	Ratio of Expenses to Receipts	Em- ployees	Salaries and Wages
	Stocks	Funded Debt	Total						
	\$	\$	\$	\$	\$	\$	p.c.	No.	\$
1941.....	37,665,091	155,867,823	193,532,914	210,279,871	55,334,647	37,030,823	66.92	14,801	23,193,704
1942.....	37,616,432	151,523,248	189,139,680	205,989,595	69,034,130	43,473,516	62.97	16,051	27,923,343
1943.....	37,492,392	147,433,845	184,926,237	204,586,208	80,027,414	54,548,335	68.16	17,896	33,975,281
1944.....	37,540,432	142,364,766	179,905,198	202,666,204	84,730,173	58,202,151	68.69	19,034	36,845,152
1945.....	37,329,194	142,384,083	179,713,277	205,026,475	88,939,451	64,533,940	72.56	20,091	39,364,771
1946.....	35,656,763 ¹	132,042,089	167,698,852	203,537,797	87,515,721	75,550,821	86.33	21,700	45,675,363
1947.....	33,915,932	138,246,540	172,162,472	218,439,361	86,519,712	81,787,723	94.53	22,627	50,117,441
1948.....	28,138,481	140,692,280	168,830,761	217,385,299	89,310,215	88,024,727	98.56	22,593	55,268,083
1949*.....	27,425,491	143,944,716	171,370,207	242,095,483	95,596,394	92,378,848	96.63	21,661	59,155,605
1950.....	27,252,391	159,192,587	186,444,978	223,224,556	91,034,058	89,414,380	98.22	21,869	57,645,574

¹ Mainly reduction of \$1,602,500 stock Hamilton Street Railway.

Traffic.—The passenger mileage travelled by electric cars in 1950 amounted to 88,170,069, by trackless trolley-buses 26,863,939 and by motor-buses 58,251,467. The number of passengers carried by electric railways in the years since 1939 showed an especially sharp rise over previous years owing to improved conditions and the

curtailment of passenger-automobile traffic during the War. The 1,344,916,773 passengers carried in 1946 was by far the greatest traffic ever handled by these systems; the number in 1950 was the lowest since 1943.

20.—Statistics of Electric Railway Operations, 1941-50

NOTE.—Figures for 1901-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	Miles of Road		Electric Car and Bus Mileage			Fare Passengers Carried ¹	Freight Carried ¹
	Total	With Double Track	Passenger	Other	Total		
	miles	miles	miles	miles	miles	No.	tons
1941.....	1,028.24	491.43	134,832,228	2,746,314	137,578,542	795,170,569	3,265,449
1942.....	1,017.24	488.01	152,518,129	2,852,757	155,370,886	996,208,535	3,711,468
1943.....	1,019.29	487.91	164,050,357	2,773,462	166,823,819	1,177,003,883	3,751,785
1944.....	1,019.69	490.17	169,421,343	2,756,755	172,178,098	1,249,707,399	3,769,959
1945.....	1,015.54	488.30	175,498,520	2,777,976	178,276,496	1,316,571,540	3,639,989
1946.....	1,004.44	485.06	177,256,084	2,822,300	180,078,384	1,344,916,773	3,506,805
1947.....	895.25	436.95	180,204,812	2,808,252	183,013,064	1,323,723,782	3,655,278
1948.....	778.92	391.78	182,943,709	3,038,989	185,982,698	1,309,565,795	4,050,111
1949.....	719.31	356.61	173,849,096	3,048,146	176,897,242	1,240,558,812	3,702,016
1950.....	662.96	326.90	173,285,475	3,562,144	176,847,619	1,192,058,052	4,115,974

¹ Includes passengers and freight carried on buses and trackless trolley-buses operated by electric railways.

21.—Passengers, Employees and Others Killed or Injured on Electric Railways, 1941-50

NOTE.—Figures for 1900-40 are given in the corresponding tables of previous Year Books beginning with the 1926 edition.

Year	Passengers		Employees		Others		Totals	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.	No.	No.
1941.....	1	2,508	5	423	60	1,002	66	3,933
1942.....	2	3,157	3	489	86	1,338	91	4,984
1943.....	—	4,301	2	722	78	1,491	80	6,514
1944.....	3	3,980	7	835	88	1,556	98	6,371
1945.....	2	4,092	3	944	104	1,592	109	6,628
1946.....	8	4,009	3	904	66	1,584	77	6,497
1947.....	2	4,181	4	910	71	1,469	77	6,560
1948.....	2	3,792	5	1,336	74	1,328	81	6,456
1949.....	1	3,688	1	766	63	1,239	65	5,693
1950.....	—	3,718	1	730	44	1,204	45	5,652

The Toronto Underground Electric Railway.—Canada's first underground electric railway, at Toronto, Ont., was one of the planned major developments upon which work was commenced during 1949. The subway or underground railway will run north-south following the line of Yonge St. to Queen St. The opening is scheduled for the late autumn of 1953. The estimated cost of the Yonge and Queen Sts. subways is placed at over \$55,000,000. The total distance covered by the rapid transit lines will be about 9.1 miles, in the most congested areas of the city. The subway will descend from 6 ft. to a maximum of 20 ft. below the street surface. Considerable new equipment is on order and it is proposed to operate trains up to 5 two-car units in length. The ultimate capacity of the System is estimated at 40,000 passengers per hour in both directions. Excavations on the Yonge Street project alone involves the removal of about 1,390,000 cubic yards of material.

Section 3.—Express Companies

Express service is an expedited freight service on passenger trains, but express companies do not own the means of performing these services; railway facilities are used by virtue of contracts with the railway companies. Express companies in Canada have thus always had close relations with the railways.

Goods are sent by express for quick transit, so that express rates do not generally compete with freight rates. The Dominion Express Company, in pursuance of its contract with the Canadian Pacific Railway, gave, in its first tariff, a rate of two and one-half times the maximum first-class railway freight rate for the same goods carried the same distance. The majority of the contracts between express and railway companies for carrying express freight are on the basis of a percentage of the gross express revenue and the rates paid by the shipper are subject to the approval of the Board of Transport Commissioners. All express companies are organized under powers conferred by Acts of the Federal Government and their business consists in the expeditious shipment of valuable live stock and such perishable commodities as fresh fish, fruit, etc., the forwarding of parcels, and the issue of money orders, travellers cheques, letters of credit and other forms of financial paper.

Express Company Operations.—Four express organizations operate in Canada—three Canadian and one American. The Canadian Pacific Express Company, formerly the Dominion Express Company, is a subsidiary of the Canadian Pacific Railway and handles the express business on the railways and the inland and ocean steamship lines of the parent company. The express business of the Canadian National and Northern Alberta Railways is handled by departments of the respective railways. The Railway Express Agency, Incorporated, operates over the Canadian sections of United States railways and over the route from Skagway, Alaska, to points in Yukon Territory. No statistics are available on the volume of traffic carried by express. Much of the traffic consists of parcels and small lots that would make statistical classification and measurement very difficult. However, there is also an important movement in car lots of live stock, fresh fish, fruit, vegetables and other perishable commodities.

22.—Mileages Operated, Revenue and Expenditure of Express Companies, 1942-51

NOTE.—Figures for 1911-41 are given in the corresponding tables of previous Year Books beginning with the 1927-28 edition.

Year or Company	Mileages Operated ¹	Gross Earnings	Operating Expenditure	Express Privileges ²	Net Operating Revenue
	No.	\$	\$	\$	\$
1942.....	52,824	25,725,512	13,391,508	11,388,477	945,527
1943.....	52,670	32,875,971	15,824,160	15,323,905	1,727,906
1944.....	50,668	34,357,760	18,856,659	15,301,512	199,589
1945.....	50,938	37,171,862	20,040,339	16,711,647	419,876
1946.....	51,365	39,260,553	22,670,616	16,841,229	Dr. 251,292
1947.....	51,341	42,314,758	25,770,190	17,650,061	Dr. 1,105,493
1948.....	51,840	46,809,112	30,398,053	18,785,988	Dr. 2,374,929
1949.....	54,806	51,966,290	32,385,223	21,226,817	Dr. 1,645,750
1950					
Canadian National Express.....	29,167	26,166,710	17,221,958	11,564,943	Dr. 2,620,191
Canadian Pacific Express.....	21,605	23,952,173	14,885,270	8,735,361	331,542
Northern Alberta Railways.....	928	518,323	230,900	234,883	52,545
Railway Express Agency, Inc....	3,881	1,380,281	543,561	820,769	15,951
Totals, 1950.....	55,581	52,017,492	32,881,689	21,355,956	Dr. 2,220,153
1951					
Canadian National Express.....	29,802	31,079,031	20,339,194	10,176,308	563,529
Canadian Pacific Express.....	21,531	27,234,716	17,050,297	9,807,890	376,529
Northern Alberta Railways.....	928	583,487	264,569	264,092	54,826
Railway Express Agency, Inc....	5,093	1,526,269	720,068	788,874	17,327
Totals, 1951.....	57,355	60,423,503	38,374,128	21,037,164	1,012,211

¹ Over railways, boat lines and motor-carrier and aircraft routes.

² Amounts paid by express companies to the carriers, i.e., railways, steamship lines, etc., for transporting express matter.

23.—Business Transacted by Express Companies in Financial Paper, 1947-51

Description	1947	1948	1949	1950	1951
	\$	\$	\$	\$	\$
Money orders, domestic and foreign.....	126,592,398	133,668,100	131,358,491	121,476,102	137,215,925
Travellers cheques, domestic and foreign.....	5,697,740	6,654,176	8,250,196	9,242,789	7,753,328
"C.O.D." cheques.....	22,745,649	23,693,890	23,527,669	21,292,175	24,186,587
Telegraphic transfers.....	367,058	207,694	187,522	153,140	191,188
Totals.....	155,402,845	164,223,860	163,323,878	152,164,206	169,347,028

24.—Employees, Salaries and Wages and Commissions of Express Companies, 1942-51

Year	Full-Time Employees	Salaries and Wages ¹	Com-missions Paid	Year	Full-Time Employees	Salaries and Wages ¹	Com-missions Paid
	No.	\$	\$		No.	\$	\$
1942.....	5,296	9,417,112	1,253,428	1947.....	8,017	18,308,793	1,995,947
1943.....	5,936	10,837,037	1,569,453	1948.....	8,525	22,212,249	2,157,489
1944.....	6,705	13,263,739	1,729,195	1949.....	8,809	23,621,322	2,283,425
1945.....	7,160	13,945,167	1,846,884	1950.....	8,974	24,195,490	2,177,933
1946.....	7,430	16,060,439	1,975,856	1951.....	9,610	28,607,463	2,443,341

¹ Includes wages to part-time employees.

PART III.—ROAD TRANSPORTATION*

Recent development of highways in Canada has been almost exclusively for the purpose of providing roadbed for motor-vehicle traffic so that highways and motor-vehicles are treated here as related features of transportation. Following an introductory section, which summarizes provincial regulations regarding motor-vehicles and motor traffic, the entire subject of road transportation is dealt with under the headings of roads and highways and motor-vehicles.

Section 1.—Provincial Motor-Vehicle and Traffic Regulations†

NOTE.—It is obviously impossible to include here the great mass of detailed regulations in force in each province and Territory; only the more important general information is given. The sources of information for detailed regulations for specific provinces and the Territories are given at pp. 762-765.

General.—The licensing of motor-vehicles and the regulation of motor-vehicle traffic lies within the legislative jurisdiction of the provincial and territorial governments. Regulations that are common to all provinces and to the Territories are summarized under the following headings:—

Operator's Licences.—The operator of a motor-vehicle must be over a specified age (usually 16 years) and must carry a licence, obtainable in most provinces only after prescribed qualification tests and renewable annually. Special licences are required for chauffeurs and, in some cases, for those granted licences who have not reached the specified age.

Motor-Vehicle Regulations.—In general, all motor-vehicles and trailers must be registered annually, with the payment of specified fees, and must carry two registration plates, one on the front and one on the back of the vehicle (one only for the back, in the case of trailers). A change of ownership of the vehicle must be recorded with the registration authority. However, exception from registration is granted for a specified period (usually at least 90 days) in any year to visiting private vehicles registered in another province or a State that grants reciprocal treatment. Further regulations require a safe standard of efficiency in the mechanism of the vehicle and of its brakes, and provide that equipment include non-glare headlights, a proper rear light, a satisfactory locking device, a muffler, a windshield wiper, and a rear-vision mirror.

Traffic Regulations.—In all provinces and the Territories, vehicles keep to the right-hand side of the road. Everywhere motorists are required to observe traffic signs, lights, etc., placed at strategic points on highways and roads. Speed limits, usually of 50 miles per hour, are in effect; slower speeds are always required in cities, towns and villages, in passing schools and public playgrounds, at road intersections, railway crossings, or at other places or times where the view of the highway for a safe distance ahead is in any way obscured. Motor-vehicles must not pass a tram that has stopped to take on or discharge passengers, except where safety zones are provided. Accidents resulting in personal injury or property damage must be reported to a provincial or municipal police officer and a driver involved must not leave the scene of an accident until he has rendered all possible aid and disclosed his name to the injured party.

* Except as otherwise indicated, the material in this Part has been revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

† The information in this Section has been revised from material provided by the officials in charge of the administration of motor-vehicle and traffic Acts and Regulations in the individual provinces and the Territories.

Penalties.—Penalties ascend in scale from small fines for minor infractions of any of the regulations to a suspension of the operator's driving permit, impounding of the car, or imprisonment for serious infractions, recklessness, driving without an operator's licence, and especially for attempting to operate a motor-vehicle while intoxicated.

There is such a wide variation in the different provinces and territories regarding the basis of licences and fees, the regulation of public commercial vehicles, details of traffic rules, speed, and the use of motor-vehicles, that it is impossible even to outline them satisfactorily in the space available here.

Safety Responsibility Legislation.—All the provinces and territories of Canada, with the exception of Newfoundland and Yukon Territory, have enacted legislation under this heading which is sometimes referred to as Safety Responsibility Legislation and at other times as Financial Responsibility Legislation. The following paragraphs give the latest amendments to this legislation and the authorities responsible for the administration of motor-vehicles.

Newfoundland.—*Administration.*—Motor Vehicle Division, Department of Public Works, St. John's. *Legislation.*—The Highway Traffic Act, 1941, as amended.

Prince Edward Island.—Provision was made in the Highway Traffic Act, 1936, for cancellation of the licence of any person unable to satisfy judgment against him arising out of a motor-vehicle accident. The licence is to be reissued only when proof of financial responsibility is made to the Provincial Secretary. In 1946, "Unsatisfied Judgment Fund" legislation was passed whereby the injured party in an automobile accident may receive compensation from this Fund where the person at fault was unable to satisfy the judgment against him. The revised statutes of Prince Edward Island were proclaimed in 1951.

Administration.—The Provincial Secretary, Charlottetown. *Legislation.*—The Highway Traffic Act (1950, c. 14).

Nova Scotia.—*Administration.*—Motor Vehicle Branch, Department of Highways and Public Works, Halifax. *Legislation.*—The Motor Vehicle Act (1932, c. 6) and amendments, and the Motor Carrier Act (R.S.N.S. 1923, c. 78) as amended.

New Brunswick.—*Administration.*—Motor Vehicle Division, Department of Public Works, Fredericton. *Legislation.*—The Motor Vehicle Act (R.S.N.B. 1951, c. 73) as amended.

Quebec.—In 1949, the Quebec Government passed an amendment to the Motor Vehicle Act, which provides for the suspension, for at least three months, of the driver's licence and registration certificate of any person proved guilty of driving while under the influence of liquor or narcotics, or of driving in a dangerous manner or neglecting to stop after an accident or failing to give aid to persons injured in such accident, or of driving a motor-vehicle without being provided with a licence and found guilty of an accident while doing so or while his licence is suspended. In case of a suit for damages resulting from fault, carelessness or neglect, the driver's licence and registration certificate, or either, may be suspended until judgment has been satisfied. In such case, recovery of licence or certificate may

require the furnishing of a guarantee, in the form of insurance, deposit or otherwise, of sufficient financial responsibility to afford reasonable protection to the public against any future accident.

Administration.—Motor Vehicle Bureau, Provincial Revenue Offices, Treasury Department, Quebec. *Legislation.*—The Motor Vehicle Act (R.S.Q. 1941, c. 142) as amended.

Ontario.—Safety Responsibility Legislation, or Financial Responsibility Legislation as it is sometimes referred to, came into force in Ontario in September 1930.

At the 1947 session of the Ontario Legislature, the Highway Traffic Act was amended to provide for the automatic suspension of the driver's licence and motor-vehicle permit of: (1) every person convicted of any offence under the Act if any personal injury or property damage occurs in connection therewith; (2) every person convicted of any offence under the Act if the penalty imposed includes suspension of driver's licence or owner's permit; (3) every person convicted of a criminal offence involving the use of a motor-vehicle.

The suspensions remain effective until proof of financial responsibility is filed. The object of this law is to encourage safe driving by imposing this additional penalty on persons convicted of offences arising out of motor-vehicle accidents. Provision is also made for the forfeiture to the Crown of a motor-vehicle operated while the permit for its operation is under suspension. These amendments became effective July 1, 1947.

The Act was also amended to require the payment of all judgments arising out of motor-vehicle accidents either for personal injuries or property damage up to a maximum of \$5,000 for one person or \$10,000 for two persons and \$1,000 for property damage arising out of one accident. If judgments are not satisfied by the judgment debtors, provision is made for their payment out of an Unsatisfied Judgment Fund. The judgment debtor is then prohibited from holding a driver's licence or having a motor-vehicle registered in his name until the judgment debtor repays, in full, to the Fund the amount paid out, together with interest at 4 p.c. from the date of such payment, and also files proof of ability to satisfy a judgment for \$11,000 which may arise out of any future accidents. This part of the Act applies only to judgments arising out of accidents in Ontario since July 1, 1947.

Administration.—Motor Vehicles Branch, Department of Highways, Toronto. *Legislation.*—The Highway Traffic Act (R.S.O. 1937, c. 288) as amended, the Public Vehicle Act, 1949, and the Public Commercial Vehicle Act, 1949.

Manitoba.—In 1945, the Financial Responsibility Law of Manitoba was repealed and replaced with new Safety Responsibility Legislation.

Features under this legislation include the immediate and automatic impounding of any motor-vehicle after an accident if the operator is unable to produce proof of financial responsibility at the time. Impoundment continues until the owner or driver settles any claims for damages or bodily injury sustained, or deposits with the Provincial Treasurer security sufficient to cover any judgment which may be recovered and until the owner of the vehicle has filed proof of financial responsibility for the future.

Driving privileges of financially irresponsible motorists are indefinitely suspended pending settlement of damage claims or deposit of security and the filing of proof of financial responsibility.

A trust fund called the Unsatisfied Judgment Fund provides for payment of judgments for bodily injuries and deaths in cases where the judgment debtor does not pay. This Fund also provides for the victims of hit-and-run motorists.

Administration.—Provincial Treasurer, Winnipeg. *Legislation.*—The Highway Traffic Act (R.S.M. 1940, c. 93) as amended.

Saskatchewan.—Financial Responsibility Legislation in this Province was placed on the Statutes in 1933 and provides that, where a judgment is rendered in any court in Canada for damages on account of death or injury to any person or on account of property damage in excess of \$50, occasioned by a motor-vehicle, and the person fails to satisfy the judgment within 30 days from the date upon which it becomes final, the Board shall suspend the operator's or chauffeur's licence issued to the person against whom the judgment is rendered and the registration of every motor-vehicle registered in his name. Judgment must be satisfied before licences are reinstated and the person so liable must give proof of financial responsibility for future motor-vehicle accidents in the amount of \$11,000 for a period of three years.

The Automobile Accident Insurance Act was passed by the Legislature and placed on the Statutes during 1946 and provides collision insurance, personal injury insurance, and public liability and property damage insurance in the amounts as set forth in the said Act. Saskatchewan citizens are provided with insurance against death or personal injury resulting directly from motor-vehicle accidents. Every person is automatically provided with public liability and property damage insurance to the extent of the amount paid for personal injuries or property damage which is payable by the insurance office.

Administration.—Treasury Department, Highway Traffic Board, Revenue Building, Regina. *Legislation.*—The Vehicles Act (R.S.S. 1951, c. 85).

Alberta.—In 1947, the Alberta Legislature passed the Automobile Accident Indemnity Act (later the title was amended to the Motor Vehicle Accident Indemnity Act), the main provisions of which are: the suspension of the licences of all drivers directly or indirectly involved in an accident which results in bodily injury, or in property damage exceeding \$75 in value (changed from \$25 in 1949), if proof of financial responsibility on the part of the driver is not forthcoming; and an Unsatisfied Judgment Fund is set up on the basis of a fee of \$1 per year, collected for each licensed motor-vehicle in addition to the regular registration fee. Action may be taken against the Superintendent of the Fund where a judgment for an amount exceeding \$100 has been obtained following a motor-vehicle accident, if the assets of the judgment debtor are insufficient to meet the award of the court, or in cases where the driver or owner of the motor-vehicle causing the accident is unknown. Minor amendments were made to this legislation in 1948 and 1949.

Administration.—Motor Vehicle Branch, Department of the Provincial Secretary, Edmonton, and the Highway Traffic Board, Department of Public Works, Edmonton. *Legislation.*—The Vehicles and Highway Traffic Act (R.S.A. 1942, c. 275) as amended, the Motor Vehicle Accident Indemnity Act (1947, c. 11) and amendments, the Public Service Vehicles Act (R.S.A. 1942, c. 276), and Rules and Regulations. The Vehicles and Highway Traffic Act and the Motor Vehicle Accident Indemnity Act are administered by the Motor Vehicle Branch, Department of the Provincial Secretary, and the Public Service Vehicles Act by the Highway Traffic Board, Department of Public Works.

British Columbia.—Financial Responsibility Legislation, which has been in effect in this Province since 1932, provides for the suspension of the driver and motor-vehicle licences on failure to pay judgments, for contravention of certain convictions in connection with speed and for offences under Section 285 of the Criminal Code, etc. These suspensions remain in effect until the party concerned files proof of financial responsibility, which he is required to keep in full force and effect for a period of at least three years at which time he may be released under certain circumstances. In 1947, new legislation was enacted that added to the Financial Responsibility Legislation already in effect, providing for the impounding of motor-vehicles that were involved in motor-vehicle accidents, and for which, at the time, a motor-vehicle liability insurance card or a financial responsibility card could not be produced, and the suspension of licences until proof of financial responsibility is given and other security or satisfaction of claims is given for damages or injuries caused.

Administration and Legislation.—Enforcement of the Motor Vehicle Act, the Highway Act and the Motor Carrier Act is vested in the Royal Canadian Mounted Police and the Municipal Police, Victoria, while the Highway Act is administered by the Minister of Public Works, the Motor Carrier Act by the Public Utilities Commission, and the Motor Vehicle Act by the Superintendent of Motor Vehicles.

Yukon Territory.—*Administration.*—Commissioner of the Yukon Territory, Dawson, Yukon Territory. Information regarding regulations may also be obtained from the Northern Administration and Lands Branch, Department of Resources and Development, Ottawa. *Legislation.*—The Motor Vehicle Ordinance, (1947, c. 2) as amended.

Northwest Territories.—*Administration.*—Commissioner of the Northwest Territories. Address communications to the Director, Northern Administration and Lands Branch, Department of Resources and Development, Ottawa. *Legislation.*—The Motor Vehicles Ordinance, assented to Nov. 30, 1950, as amended.

Section 2.—Roads and Highways

The steadily increasing use of motor-vehicles for pleasure and commercial travel has created an insistent demand for more and better highways and for the development of scenic routes as tourist attractions.

The figures of Table 1 include the mileages of all roads under provincial jurisdiction, those in the National Parks, local roads in the Atlantic Provinces and Ontario and estimates of local roads in the four western provinces. There are great stretches of country in Newfoundland, the northern portions of Quebec, Ontario, the Prairie Provinces and British Columbia with very few people and very few roads, but the more extensively populated portions are well supplied. The Northwest Highway System (the Alaska Highway), built for military purposes during 1942 and extending 1,600 miles from Fort St. John, B.C., to Fairbanks, Alaska, serves civilian as well as military traffic. It opens up a vast area of hitherto virgin territory and affords a means of all-weather land communication from Alaska through Canada to the United States.

Statistics of urban streets have been collected since 1935 from cities and principal towns; the small municipalities omitted would increase the totals very little. For 1950, the total number of miles of street reported was 14,462, composed of 3,899

miles of bituminous pavements, 858 miles of portland cement concrete; 2,607 miles of bituminous surfaces, 3,436 miles of gravel and crushed stone and 122 miles of other surfaces; making a total of 10,922 miles of surfaced streets and 3,540 miles of earth roads. These figures for urban streets or roads are not included in Table 1.

1.—Mileage of each Type of Road, by Provinces, as at Mar. 31, 1951

NOTE.—The figures for Canada are the sums of the mileages so reported. Urban streets are not included in the figures.

Classification	Nfld	P.E.I.	N.S. ¹	N.B. ²	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Total
	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles
SURFACED ROAD												
Portland cement concrete.....	—	4	7	—	324	1,612	72	—	—	26	—	2,045
Bituminous pavements.....	20	—	33	—	5,203	4,188	—	—	—	1,257	—	10,701
Bituminous surface.....	101	271	1,175	1,538	906	4,302	730	754	1,193	1,104	—	12,074
Gravel—	—	—	—	—	—	—	—	—	—	—	—	—
crushed stone...	1,800	1,516	6,908	9,062	20,724	50,842	8,413	15,152	17,274	8,855	1,476	142,022
Other surfaces...	—	—	—	—	—	—	—	57	—	—	—	57
TOTALS, SURFACED ROAD...	1,921	1,791	8,123	10,600	27,157	60,944	9,215	15,963	18,467	11,242	1,476	166,899
NON-SURFACED ROAD												
Improved earth..	440	1,926	3,146	1,870	—	12,901	8,055	81,029 ³	29,786 ³	10,197	151	149,501
Other earth roads	3,940	—	3,877	730	14,255	—	74,184 ³	115,661 ⁴	36,088 ³	2,020	—	250,755
TOTALS, NON-SURFACED ROAD	4,380	1,926	7,023	2,600	14,255	12,901	82,239	196,690	65,874	12,217	151	400,256
Grand Totals..	6,301	3,717	15,146	13,200	41,412	73,845	91,454	212,653	84,341	23,459⁵	1,627⁶	567,155

¹ Reported as at Nov. 30, 1950. ² Reported as at Oct. 31, 1950. Gravel and earth road mileages partly estimated. ³ Includes all road allowances. ⁴ Includes 59,461 miles of unimproved road allowances not in use. ⁵ Includes 697 miles of gravelled and 110 miles of improved earth roads of the Northwest Highway System. ⁶ Includes 598 miles of Northwest Highway System and 75 miles of the Atlin Road gravelled and 110 miles of Northwest Highway System improved earth roads.

Finances of Road Transportation.—The cost of road transportation to the people of Canada may be summarized under the following headings: expenditure on roads and highways; expenditure of individuals and corporations on owned motor-vehicles; expenditure for freight and passenger services rendered by public motor-carriers such as taxi, bus and motor-transport companies; and expenditures on garages, service stations, etc. Since expenditure on roads and highways is made almost entirely by government bodies, fairly complete statistics are available regarding them but, owing to the tremendous number of individuals and organizations that would have to be canvassed and the difficulties involved, complete statistics are not available under the other headings. Sales of gasoline are given at p. 772 and revenue of motor-carriers at p. 773.

Expenditure on Roads and Highways.—Roads in Canada, except in the Territories, the Indian Reservations and the National Parks, are under the jurisdiction of either provincial or municipal authorities.

Provincial and municipal expenditure was sharply curtailed during the war years 1939-45 and a considerable backlog of essential repair, improvement and expansion work was accumulated. In 1946, approximately \$144,469,000 was expended on construction, maintenance and general expenditure for roads and

bridges and from 1947 to 1950 outlays steadily increased and amounted to \$232,514,000, \$265,802,000, \$270,170,000 and \$277,914,000, respectively. Unit costs per mile of new construction increased over pre-war levels and had a restrictive effect on the planned extension of first-class roads. However, the improvement and completion of the Trans-Canada Highway, as a main artery of interprovincial travel, is well under way as a joint responsibility of federal and provincial authorities.

2.—Construction, Maintenance and General Expenditure on Rural Roads, Bridges and Ferries, by Provinces, 1947-50

NOTE.—Expenditure is for the respective provincial fiscal years. Figures for each year since 1931 are given in the corresponding tables of previous Year Books beginning with the 1937 edition.

Item, Province or Territory	1947	1948	1949	1950
	\$	\$	\$	\$
Construction—				
Newfoundland.....	...	...	1,862,129	4,485,354
Prince Edward Island.....	1,618,270	1,406,558	1,177,213	1,564,687
Nova Scotia.....	9,650,905	14,171,802	14,606,701	15,225,019
New Brunswick.....	11,145,097	14,197,244	9,848,276	10,560,011
Quebec.....	32,266,000	48,208,000	37,977,756	31,325,159
Ontario.....	29,267,586	30,176,894	34,200,336	41,220,136
Manitoba.....	4,986,705	8,065,007	7,998,782	5,361,168
Saskatchewan.....	6,122,684	6,107,610	6,247,962	6,677,887
Alberta.....	12,997,155	14,132,453	12,845,686	16,509,201
British Columbia.....	15,058,043	13,646,266	26,571,557	18,599,050
Yukon and N.W.T.....	1,690,410	848,000	2,391,972	2,521,066
Canada, Construction¹	124,863,912	151,057,111	156,223,856²	154,699,553²
Maintenance—				
Newfoundland.....	...	...	1,442,908	1,447,686
Prince Edward Island.....	1,053,575	678,424	888,485	1,063,116
Nova Scotia.....	4,763,016	7,307,727	7,288,235	6,070,948
New Brunswick.....	4,365,076	6,680,846	5,278,069	6,162,960
Quebec.....	34,711,654	27,182,042	19,337,970	20,761,173
Ontario.....	33,873,098	40,804,487	38,987,794	44,719,097
Manitoba.....	1,520,789	1,934,874	1,844,171	2,143,407
Saskatchewan.....	2,571,894	2,855,225	2,630,792	3,268,886
Alberta.....	7,142,511	4,146,537	11,730,362	13,387,434
British Columbia.....	6,480,712	8,676,506	13,628,207	10,170,411
Yukon and N.W.T.....	1,868,501	2,348,289	1,023,368	1,273,154
Canada, Maintenance	98,350,826	102,614,957	104,080,361	110,468,272
Administration and General—				
Newfoundland.....	...	...	179,700	218,409
Prince Edward Island.....	56,068	72,572	87,969	53,315
Nova Scotia.....	537,605	656,697	651,425	743,397
New Brunswick.....	42,147	20,000	249,202	274,709
Quebec.....	1,871,000	1,691,000	2,010,406	2,076,995
Ontario.....	4,924,066	4,497,582	4,728,877	4,343,658
Manitoba.....	467,526	462,839	588,150	621,086
Saskatchewan.....	145,957	185,496	234,857	238,544
Alberta.....	56,498	49,930	61,193	114,693
British Columbia.....	193,610	3,454,030	921,693	3,695,307
Yukon and N.W.T.....	1,005,080	1,040,000	152,253	190,423
Canada, Administration and General	9,299,557	12,130,146	9,865,725	12,745,934³
Grand Totals	232,514,295	265,802,214	270,169,942	277,913,759
Distribution of All Expenditure—				
Federal.....	7,962,716	6,447,655	10,312,894 ²	17,169,721 ^{2,3}
Provincial.....	209,283,093	248,975,024	240,747,574	243,024,312
Municipal.....	14,811,914	10,097,131	18,594,702	17,191,662
Other ¹	456,572	282,404	514,772	528,064

¹ Includes payments from railways re elimination of grade crossings, etc.: 1947, \$61,057; 1948, \$104,277; 1949, \$251,911; and 1950, \$227,484. ² Includes contributions from Railway Grade Crossing Fund toward elimination of grade crossings, etc.: 1949, \$243,575; and 1950, \$302,021. The Federal Government also contributed \$121,310 toward grade separations, etc., on the Trans-Canada Highway during 1950. ³ Includes \$175,398 federal administrative costs re Trans-Canada Highway.

The Trans-Canada Highway System.—An outline of the legislation, specifications and construction of the joint federal-provincial project, the Trans-Canada Highway, with a map showing the proposed route in the eight provinces participating at that date is given in the Year Book 1951, pp. 631-634.

The estimated mileage in 1952 for the eight original provinces entering the agreement with the Federal Government in 1950 and for Nova Scotia since May 15, 1952, are: Newfoundland, 610 miles; Prince Edward Island, 74; Nova Scotia, 310; New Brunswick, 388; Ontario, 1,412; Manitoba, 305; Saskatchewan, 414; Alberta, 292; British Columbia, 692; and the National Parks 83; making a total of 4,580 miles.

Contractual commitments for the eight participating provinces with respect to new construction work on the Highway during the period Dec. 9, 1949, to Mar. 31, 1952, amounted to \$29,985,954. The amounts paid during this same period in respect of prior and new construction were \$3,146,031 and \$16,850,494, respectively. The on-site labour expended on the Highway during this same period amounted to 1,210,577 man-days of eight hours each.

The Highway through the National Parks will be constructed entirely with Federal Government funds and the amount of \$500,000 has been placed in the estimates for this purpose and construction work commenced during 1952. The 1952 program comprised of the building of a bridge over the Bow River near Lake Louise railway-station and the grading of approximately eight miles of roadway on the Banff-East Gate section in Alberta.

Section 3.—Motor-Vehicles

Registration.—Automobiles were registered in Canada for the first time in 1904 and Ontario was the only province to issue licences in that year. New Brunswick began registering cars in 1905; Quebec, Saskatchewan and Alberta in 1906; British Columbia in 1907; Manitoba in 1908; Nova Scotia in 1909; Prince Edward Island in 1913; and Yukon Territory in 1914.

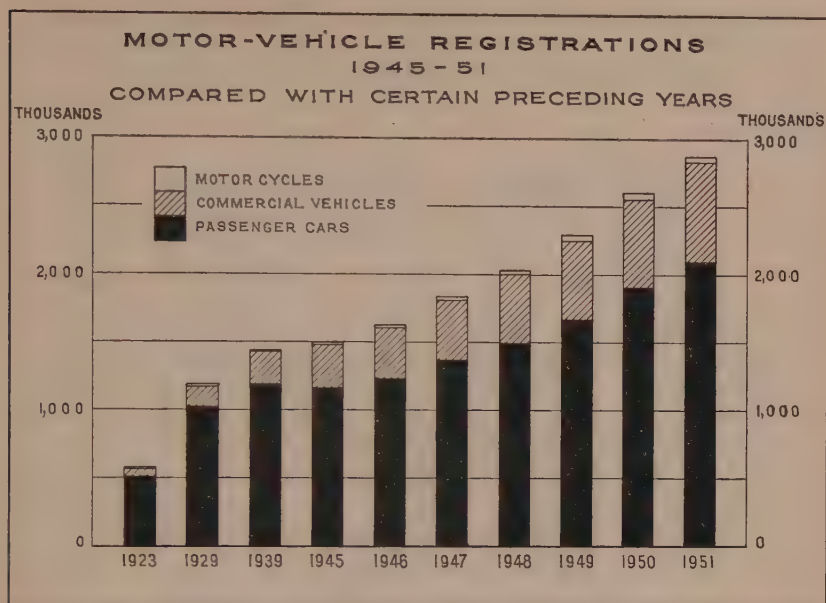
In 1905, only 565 motor-vehicles were registered in Canada but by 1915 the number had risen to 95,284 and by the end of the next decade to 724,048. With the exception of 1931-33, an annual increase was in evidence until 1941 when 1,572,784 motor-vehicles were registered. The number of commercial vehicles continued to increase during the war years but a considerable decline was shown in passenger cars owing to restrictions on manufacture and the rationing of tires and gasoline. However, post-war recovery was rapid, registrations reaching a peak in 1951 when the total of 2,872,420 registrations included 2,097,594 passenger cars and taxis, 722,463 trucks and miscellaneous vehicles, 9,174 buses and 43,189 motorcycles.

3.—Motor-Vehicles Registered, by Provinces, 1942-51

NOTE.—Registrations given here include passenger cars, trucks, buses, motorcycles, service cars, etc., but not trailers or dealer licences. Figures for 1904-35 are given in the 1937 Year Book, p. 668; and those for 1936-40 in the 1948-49 edition, p. 707.

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total ¹
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1942...	...	7,537	58,872	37,758	222,622	715,380	93,147	130,040	125,482	132,893	1,524,153
1943...	...	8,032	59,194	40,205	222,676	691,615	93,494	133,839	127,559	134,691	1,511,845
1944...	...	8,412	57,933	39,570	224,042	675,057	93,297	140,992	127,416	135,090	1,502,567
1945...	...	8,835	56,699	41,577	228,681	662,719	92,758	140,257	130,153	134,788	1,497,081
1946...	...	9,192	62,660	44,654	255,172	711,106	101,090	148,206	138,868	150,234	1,622,463
1947...	...	9,948	70,300	51,589	296,547	800,058	112,149	158,512	155,386	179,684	1,835,959
1948...	...	11,290	76,319	62,366	335,953	874,933	128,000	167,515	173,950	202,126	2,034,943
1949...	13,981	13,211	83,443	67,290	384,733	970,137	139,836	185,027	200,428	230,008	2,290,628
1950...	16,375	15,383	94,743	74,415	433,701	1,104,080	157,546	199,866	230,624	270,312	2,600,269
1951...	20,058	16,896	105,262	83,023	500,729	1,205,098	171,265	215,450	259,841	291,417	2,872,420

¹ Totals include registrations in the Yukon and Northwest Territories.



4.—Types of Motor-Vehicles Registered, by Provinces, 1950 and 1951

Year and Province or Territory	Passenger Cars ¹	Commercial Cars, Trucks, etc. ²	Buses	Motor- cycles	Total
	No.	No.	No.	No.	No.
1950					
Newfoundland.....	10,907	4,768	381 ³	319	16,375
Prince Edward Island.....	10,392	4,885	25	81	15,383
Nova Scotia.....	62,417	30,206	473	1,647	94,743
New Brunswick.....	48,890	23,679	382	1,464	74,415
Quebec.....	302,811	112,020	2,748	16,122	433,701
Ontario.....	881,143	205,616	3,612 ⁴	13,709	1,104,080 ⁵
Manitoba.....	111,240	44,363	191	1,994	157,788
Saskatchewan.....	129,302	69,213	127	1,224	199,866
Alberta.....	150,546	77,155	450	2,473	230,624
British Columbia.....	198,397	67,306	⁶	4,609	270,312
Yukon and N.W.T.....	1,124	2,044	28	28	3,224
Canada, 1950.....	1,907,169	641,255	8,417	43,670	2,600,511
1951					
Newfoundland.....	13,483	5,919	264	392	20,058
Prince Edward Island.....	11,176	5,616	20	84	16,896
Nova Scotia.....	69,786	33,274	515	1,687	105,262
New Brunswick.....	54,327	26,623	687	1,386	83,023
Quebec.....	350,435	130,931	2,931	16,432	500,729
Ontario.....	958,082	229,585	3,961 ⁴	13,470	1,205,098 ⁵
Manitoba.....	119,775	49,337	198	1,955	171,265
Saskatchewan.....	137,038	77,201	109	1,102	215,450
Alberta.....	168,482	88,380	471	2,508	259,841
British Columbia.....	213,770	73,503	⁶	4,144	291,417
Yukon and N.W.T.....	1,240	2,094	18	29	3,381
Canada, 1951.....	2,097,594	722,463	9,174	43,189	2,872,420

¹ Includes taxis.
seven-passenger cars.² Includes service cars, tractors, etc.⁴ Includes trolley-buses.³ Includes station-wagons and⁵ Includes Department of National Defence

vehicles carrying permanent plates.

⁶ Included with trucks.

Apparent Consumption of Automobiles.—The apparent consumption of automobiles in Canada in any year is computed by deducting the number exported from the sum of the production and imports. Statistics regarding retail sales and the financing of motor-vehicle sales in Canada are given in Chapter XX of this volume.

5.—Apparent Supply of New Automobiles, 1941-50

Year	Cars Made for Sale in Canada		Car Imports ¹		Re-exports of Imported Cars		Apparent Supply ¹	
	Passenger	Commercial	Passenger	Commercial	Passenger	Commercial	Passenger	Commercial
	No.	No.	No.	No.	No.	No.	No.	No.
1941.....	81,943	76,627	2,672	1,036	26	—	84,589	77,663
1942.....	8,596	93,903	327	718	9	2	8,914	94,619
1943.....	—	79,290	21	795	1	163	20	79,922
1944.....	—	66,013	35	3,249	5	33	30	69,229
1945.....	1,866	47,459	236	1,855	3	19	2,099	49,295
1946.....	63,501	41,318	18,642	3,600	6	72	82,137	44,846
1947.....	128,243	63,152	35,570	7,293	26	4	163,787	70,441
1948.....	135,316	73,582	17,037	3,575	17	4	152,336	77,153
1949.....	177,060	85,715	35,293	3,404	32	8	212,321	89,111
1950.....	259,481	96,826	81,722	6,806	62	20	341,141	103,612

¹ Does not include Armed Forces vehicles.

Provincial Government Revenue from Motor-Vehicles.—The taxation of motor-vehicles, garages, drivers, chauffeurs, etc., is an important source of provincial government income. In every province licences or permits, duly issued by the provincial authorities, are required for motor-vehicles of all kinds, trailers, operators or drivers, paid chauffeurs, dealers, garages and gasoline and service stations. A sales tax on gasoline is also levied by each province and to Mar. 31, 1947, there was also a federal tax of 3 cents per gallon but this was withdrawn on that date and most provincial sales taxes were increased to absorb the federal rate. The rates per gallon in effect in 1952 are: for Newfoundland 14 cents; the Provinces of Prince Edward Island, New Brunswick and Quebec 13 cents; Nova Scotia 15 cents since June 1951; Ontario 11 cents; Manitoba 9 cents; Saskatchewan, Alberta and British Columbia 10 cents; and the Yukon and Northwest Territories 6 cents. The more important sources from which provincial revenue from motor-vehicles is derived are shown in Table 6. Federal Government revenue from import duties, excise and sales taxes are given in Chapter XXIII.

6.—Provincial Revenue from the Registration and Operation of Motor-Vehicles, 1949 and 1950

NOTE.—Figures are for the respective provincial fiscal years, all of which end Mar. 31 with the exception of Nova Scotia (Nov. 30) and New Brunswick (Oct. 31).

Year, Province or Territory	Registration Licences				Operator and Chauffeur Licences	Tax on Bus and Truck Operators	Gasoline Tax	Total, Including Miscel- laneous Revenue
	Passenger Car	Truck and Bus	Motor- cycle	Dealer				
	\$	\$	\$	\$	\$	\$	\$	\$
1949								
Newfoundland....	101,082	208,671	1,345	1,102	60,628	—	1,006,356	1,408,648
P. E. Island.....	146,641	115,364	307	1,562	10,261	5,000	855,776	1,143,857
Nova Scotia.....	1,029,436	1,380,294	1	12,651	230,618	95,642	6,246,491	9,231,041
New Brunswick...	856,129	1,268,414	7,233	5,693	193,230	42,185	5,535,767	8,006,736
Quebec.....	2	2	2	2	2	2	30,908,312 ²	45,644,052 ²
Ontario.....	6,708,732	7,248,410	18,129	41,098	1,492,649	1,045,781	58,228,133	76,745,251
Manitoba.....	1,248,609	550,962	7,039	14,800	211,327	408,265	5,291,780	7,814,849
Saskatchewan....	1,567,183	650,036	6,057	39,890	249,300	419,362	7,882,783	11,440,170
Alberta.....	2,213,848	1,895,167	8,780	30,691	324,762	1,201,465	10,635,059	16,475,194
British Columbia.	3,623,304	2,170,105	26,843	28,038	390,284	301,846	11,163,046	18,016,177
Yukon and N.W.T.	16,260 ³	1,058	6	100	3,495	11,175	80,813	114,195
Canada, 1949...	17,511,224	15,488,481	75,739	175,625	3,166,554	3,530,721	137,834,316²	196,040,170²
1950								
Newfoundland....	185,365	242,244	2,455	1,234	72,039	—	1,251,928	1,782,135
P. E. Island.....	168,389	162,508	438	2,350	11,924	5,544	960,238	1,321,604
Nova Scotia.....	1,161,726	1,424,576	1	13,882	241,788	92,989	6,590,526	9,793,072
New Brunswick...	995,512	1,288,486	8,094	2,410	201,130	1	5,731,589	8,407,056
Quebec.....	4,443,196	9,306,165	29,952	47,295	1,461,985	260,048	37,156,111	54,109,599
Ontario.....	8,066,603	8,144,069	28,086	44,745	1,647,684	1,206,851	65,040,229	86,605,148
Manitoba.....	1,443,736	621,047	7,922	16,280	224,843	456,736	5,997,075	8,866,533
Saskatchewan....	1,658,303	675,545	5,676	39,822	260,953	546,013	8,331,276	12,173,064
Alberta.....	2,554,780	1,899,431	10,270	36,665	370,085	1,568,339	11,609,189	18,235,834
British Columbia..	4,379,053	2,384,027	26,436	32,630	1,122,932 ⁴	328,672	12,400,167	20,920,828
Yukon and N.W.T.	9,582	12,154	100	50	4,233	12,397	78,257	117,240
Canada, 1950...	25,066,245	26,160,252	119,429	237,363	5,619,596	4,477,589	155,146,585	222,332,113

¹ Included with miscellaneous.
² Details for Quebec were not supplied by the Province.
 includes all motor-vehicles licence revenue for the Yukon Territory.

³ Includes revenue from driver's examinations.

Gasoline Consumption.—All provinces require retail sales of gasoline to be reported and a tax is imposed on all gasoline consumed by motor-vehicles using the highways and streets (*see* p. 770 for rates), and also on that used for an increasing number of other purposes. Most of the taxable gasoline is consumed by motor-vehicles and indicates, in a general way, the increase or decrease in their use. Net sales are the differences between the total or gross sales reported and the quantities on which the tax is refunded in whole or in part, or on which the tax is not imposed at the time of sale.

Sales during the war years 1939-45 were, of course, materially affected by rationing, and large increases have followed the removal of restrictions and have resulted in a wide advance of registrations.

7.—Sales of Gasoline, by Provinces, 1946-50

Province	1946	1947	1948	1949	1950
	gal.	gal.	gal.	gal.	gal.
Newfoundland.....	...	...	...	1	1
Prince Edward Island.....	5,945,412	6,963,412	7,288,125	8,240,105	9,085,340
Nova Scotia.....	44,571,678	51,647,756	53,136,982	57,443,469	61,348,662
New Brunswick.....	43,320,383	49,935,462	54,186,447	56,685,862	58,814,989
Quebec.....	218,008,872	247,467,957	280,857,736	304,139,386	340,621,374
Ontario.....	451,251,989	501,433,196	562,530,157	623,684,828	687,729,936
Manitoba.....	72,402,422	83,145,966	90,601,589	104,023,413	112,495,837
Saskatchewan.....	136,065,534	142,368,203	147,446,058	168,266,743	176,118,129
Alberta.....	143,650,095	171,112,439	190,608,360	218,935,855	241,387,708
British Columbia.....	97,383,294	117,497,292	130,909,076	142,297,406	155,423,743
Totals, Gross Sales.....	1,212,599,679	1,371,571,683	1,517,564,530	1,683,717,067	1,843,025,718
Refunds and exemptions.....	277,780,170	338,664,239	384,330,757	436,022,855	461,777,271
Totals, Net Sales.....	934,819,509	1,032,907,444	1,133,233,773	1,254,882,212	1,390,090,447

¹ Estimated net sales for Newfoundland, amounting to 7,188,000 gal. in 1949 and 8,842,000 gal. in 1950, are included in net totals; gross sales are not available.

Motor-Carriers.*—The lack of statistical information regarding commercial traffic on the highways led to the institution, in 1941, of a census of motor-carriers. The carriers are divided into two classes: passenger and freight. Each of these is subdivided into (a) carriers with annual revenue of \$20,000 or over; (b) carriers with revenue of \$8,000 to \$20,000; and (c) carriers with revenue under \$8,000. Bus companies handling urban traffic, exclusively, are compiled as a class. Many street-railway systems operate motor-buses, but the statistics of such systems are not included here; they are included in electric-railway statistics. Licensed carriers doing highway construction work, building air-fields, etc., are excluded from the compilations. Taxi operators and urban delivery trucks are also excluded, except where their operations include interurban business. Carriers operating as both passenger and freight carriers are classed as passenger or freight according to the preponderance of the revenue. The passenger revenue of trucking companies and the freight revenue of bus companies are small percentages of their respective total revenue.

* Statistics are given in more detail in the annual report, *Motor Carriers, Freight-Passenger*, published by the Dominion Bureau of Statistics.

8.—Capital, Revenue, Employees and Equipment of Motor-Carriers, 1948 and 1949

Item	Freight Carriers with—						Passenger Carriers	Total
	Annual Revenue of \$20,000 or Over		Annual Revenue of \$8,000–\$20,000		Annual Revenue under \$8,000			
	1948	1949	1948	1949	1948	1949		
Carriers.....No.	597	622	633	622	1,587	1,830	419	3,493
Investments— Land, buildings, equipment, etc. \$	35,655,271	42,062,072	5,506,182	5,359,223	5,010,016	5,776,917	71,786,311	124,984,523
Revenue— Freight..... \$	65,502,227	75,495,055	7,690,864	7,645,642	5,686,971	6,589,677	275,032	90,005,406
Passenger— Intercity and rural..... \$	151,435	357,446	3,596	3,787	765	150	46,835,672	47,197,055
City..... \$	—	—	6,132	6,132	—	—	16,420,058	16,426,190
Miscellaneous.. \$	2,668,975	2,907,923	265,155	287,463	201,136	199,741	2,607,331	6,002,458
Totals, Revenue \$	68,322,637	78,760,424	7,959,615	7,943,024	5,888,872	6,789,568	66,138,093	159,631,109
Working pro- prietors.....No.	450	377	661	581	1,349	1,770	241	2,969
Employees— As at July 15. No.	13,496	14,705	1,322	1,235	454	637	10,206	26,783
As at Dec. 15. “	13,335	14,380	1,186	1,159	428	520	9,512	25,571
Total wages... \$	26,158,540	31,302,703	1,796,094	1,811,555	566,569	640,121	23,049,130	56,803,509
Equipment— Trucks.....No.	6,002	6,268	1,644	1,534	1,911	2,157	178	10,137
Tractor, semi- trailer units. “	2,752	3,067	94	80	53	42	8	3,197
Trailers..... “	1,630	1,703	56	60	61	51	11	1,825
Buses..... “	32	55	19	13	7	11	4,544	4,623

Table 9 shows the freight and passengers carried by motor-carriers in 1948 and 1949. Traffic data were not available for the majority of the small operators. Many truck operators failed to report tons of freight carried and others reported only estimates; consequently, these data are not complete. A difficulty in compiling weights is that much traffic is carried on a load or package basis and not on a weight basis. Records of passengers appear to be fairly complete, possibly because tickets are sold and accounted for, and the unit is not so complex as for freight carried.

9.—Traffic Carried by Motor-Carriers, 1948 and 1949

Year and Item	Freight Carriers with—			Passenger Carriers	Total
	Annual Revenue of \$20,000 or Over	Annual Revenue of \$8,000–\$20,000	Annual Revenue of Under \$8,000		
1948					
Passengers—					
Regular Routes—					
Intercity and rural.....No.	88,975	2,248	510	129,451,734	129,543,467
City.....“	—	—	—	161,750,667	161,750,667
Special and Chartered Service—					
Intercity and rural.....No.	3,139	—	—	4,177,902	4,181,041
City.....“	—	—	—	197,262	197,262
Totals, Passengers.....No.	92,114	2,248	510	295,577,565	295,672,437
Totals, Freight, Intercity and Rural.... ton	12,129,682	1,602,193	1,045,950	111,512	14,889,337

9.—Traffic Carried by Motor-Carriers, 1948 and 1949—concluded

Year and Item	Freight Carriers with—			Passenger Carriers	Total
	Annual Revenue of \$20,000 or Over	Annual Revenue of \$8,000- \$20,000	Annual Revenue of Under \$8,000		
1949					
Passengers—					
Regular Routes—					
Intercity and rural.....No.	248,415	2,335	350	139,243,269	139,494,369
City....."	—	2,106	—	230,524,700	230,526,806
Special and Chartered Service—					
Intercity and rural.....No.	8,126	—	—	5,901,192	5,909,318
City....."	—	—	—	256,953	256,953
Totals, Passengers.....No.	256,541	4,441	350	375,926,114	376,187,446
Totals, Freight, Intercity and Rural.... ton	12,696,256	1,283,019	1,066,215	42,214	15,087,704

Motor-Vehicle Accidents.—Motorists are required by law to report accidents but complete statistics of these accidents are not available for all provinces. The Health and Welfare Division of the D.B.S. compiles statistics on all deaths from motor-vehicle accidents and these are shown in Table 10. A direct comparison of such statistics between the provinces is of little value owing to differences in size, population, motor-vehicle density, etc., but, to put them on somewhat the same basis, the average number of deaths per 10,000 registered motor-vehicles has also been tabulated. These data still give no weight to differences in use of motor-vehicles, differences in climate, road conditions, tourist cars, etc., all of which are factors in accidents, but it is apparent that safety education is required in all provinces.

Table 11 shows the number of persons killed or injured in automobile accidents as reported by the motor-vehicle branches of the Provincial Governments. It is possible that the latter reported some persons as injured who subsequently died from injuries and these would be included in the fatalities of the vital statistics shown in Table 10; also accidents that occurred late in December and resulted in deaths would be charged to December, by the provincial authorities but to January of the next year in the vital statistics data. Consequently, the figures of fatalities of Tables 10 and 11 are not in complete agreement.

10.—Deaths Resulting from Motor-Vehicle Accidents, by Provinces, 1941–50

NOTE.—This table was compiled in the Health and Welfare Division, Dominion Bureau of Statistics. Figures for 1926–35 will be found in the 1941 Year Book, p. 578, and those for 1936–40 in the 1948–49 edition, p. 712.

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
DEATHS BY PLACE OF OCCURRENCE ¹											
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1941.....	...	9	104	89	485	835	79	45	78	128	1,852
1942.....	...	8	72	52	363	610	52	58	62	132	1,409
1943.....	...	5	90	70	392	563	44	34	84	155	1,437
1944.....	...	11	73	56	406	526	53	43	80	124	1,372
1945.....	...	8	76	90	424	637	67	58	71	125	1,556
1946.....	...	4	84	69	482	729	94	70	91	158	1,781
1947.....	...	15	83	104	476	753	77	51	103	207	1,869
1948 ^a	5	96	118	599	782	81	87	125	193	2,086
1949 ^a	11	102	96	645	873	105	85	172	176	2,265
1950.....	18	7	94	103	682	860	75	91	162	188	2,270

¹ Includes all persons killed in motor-vehicle accidents by province in which death occurred.

10.—Deaths Resulting from Motor-Vehicle Accidents, by Provinces, 1941-50—concluded

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
DEATHS PER 10,000 REGISTERED MOTOR-VEHICLES											
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1941.....	...	11-23	16-56	21-47	20-89	11-30	8-18	3-43	6-18	9-52	11-78
1942.....	...	10-61	12-23	13-77	16-31	8-53	5-58	4-46	4-94	9-93	9-24
1943.....	...	6-23	15-20	17-41	17-60	8-14	4-71	2-54	6-59	11-51	9-51
1944.....	...	13-08	12-60	14-15	18-12	7-79	5-68	3-05	6-28	9-18	9-14
1945.....	...	9-05	13-40	21-65	18-41	9-61	7-22	4-14	5-46	9-27	10-39
1946.....	...	4-35	13-40	15-45 ^r	18-89	10-25	9-30	4-72	6-55	10-52	10-98
1947.....	...	15-08	11-81	20-16	16-05 ^r	9-41 ^r	6-87	3-22	6-63	11-52	10-17 ^r
1948.....	...	4-43	12-58	18-92	17-83	8-94	6-33	5-19	7-19	9-55	10-25
1949.....	...	8-33	12-22	14-27	16-76	9-00	7-51	4-59	8-58	7-65	9-89
1950.....	10-99	4-55	9-92	13-84	15-73	7-70	4-76	4-55	7-02	6-95	8-73

11.—Motor-Vehicle Accidents, by Provinces, 1950

NOTE.—Figures are as reported by provincial motor-vehicle authorities for the calendar year.

Item	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total ¹
Accidents	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Fatal—											
Resulting in death of one or more persons...	17	4	91	94	..	678	58	81	117	156	1,296
Non-fatal—											
Resulting in injury to one or more persons...	253	106	1,375	669	..	13,871	2,021	1,753	2,474	4,051	26,573
Resulting in property damage only.....	856	289 ²	4,216 ²	2,193 ²	..	29,132 ²	8,455	4,689 ²	7,144 ²	13,822 ²	70,796
Totals, Accidents.....	1,126	399	5,682	2,956	34,300²	43,681	10,534	6,523	9,735	18,029	132,965
Persons Killed											
Pedestrians.....	11	—	34	47	..	275	26	15	24	66	498
Motorcyclists (drivers and passengers).....	—	—	5	4	..	36	1 ⁶	2	4	8	60 ⁵
Drivers of other motor-vehicles.....	1	2	20	20	..	204	14 ⁵	26	50	41	378 ⁵
Passengers and attendants of other motor-vehicles.....	4	2	34	22	..	252	28 ⁵	36	47	49	474 ⁵
Drivers and other occupants of horse-drawn vehicles.....	—	—	—	—	..	—	1 ⁶	1	—	2	4 ⁵
Pedal cyclists.....	—	—	7	5	..	24	3	4	5	7	55
Other persons.....	2	—	—	—	..	—	—	2	2	2	8
Totals, Persons Killed.....	18	4	100	98	..	791	73	86	132	175	1,477
Persons Injured											
Pedestrians.....	183	11	520	233	..	4,029	570 ⁵	232	315	997	7,090 ⁵
Motorcyclists (drivers and passengers).....	6	—	47	12	..	839	80 ⁵	70	63	164	1,281 ⁵
Drivers of other motor-vehicles.....	43	30	428	288	..	5,306	650 ⁵	874	923	1,467	10,009 ⁵
Passengers and attendants of other motor-vehicles.....	106	68	741	436	..	8,756	1,200 ⁵	1,274	1,319	2,801	16,701 ⁵
Drivers and other occupants of horse-drawn vehicles.....	6	11	15	7	..	112	40 ⁵	4	12	33	240 ⁵
Pedal cyclists.....	22	11	80	21	..	898	230 ⁵	68	71	255	1,656 ⁵
Other persons.....	2	—	—	—	..	—	6 ⁵	22	21	3	54 ⁵
Totals, Persons Injured.....	368	131	1,831	997	13,000⁵	19,940	2,776	2,544	2,724	5,720	50,031
Property Damage, \$'000	35⁶	97²	1,347²	716²	..	12,964²	..	1,979²	2,884⁴	4,267²	24,289⁷

¹ Exclusive of 21 accidents in the Northwest Territories with 2 killed and one injured and property damage of \$8,330. Quebec data not available but estimated total accidents and total persons injured are included. ² Property damage over \$50. ³ Property damage over \$100. ⁴ Property damage over \$75, Edmonton estimated. ⁵ Estimated. ⁶ Not complete, portion included represents accidents over \$50 in "outports" during the period Aug. 1-Dec. 31, 1950. ⁷ Totals for provinces reporting.

PART IV.—WATERWAYS*

The Canada Shipping Act.—Legislation regarding all phases of shipping is consolidated under the Canada Shipping Act (1934, c. 44). The Act is a sequel to the passage of the Statute of Westminster in 1931, under which the Parliament of Canada accepted full responsibility for the regulation of Canadian shipping. The Canada Shipping Act is a comprehensive piece of legislation embracing features of international agreements as well as of British and previous Canadian legislation. A brief summary of the Act is given in the 1938 Year Book, pp. 680-682.

Section 1.—Shipping Facilities and Traffic

The developments and equipment to facilitate water traffic are classified under the headings of shipping, harbours, canals and aids to navigation. Subsection 5 gives information regarding pilotage service, steamship inspection, and personnel shipped and discharged.

Under the Terms of Union of Newfoundland with Canada the extensive marine services and facilities of that Province were incorporated with those provided by the Federal Department of Transport. A separate Marine Agency to take over the Province of Newfoundland was created with headquarters at St. John's. All existing lighthouses, buoys and other aids to navigation were taken over. Certain public harbours in Newfoundland, such as the Harbour of St. John's, which before union were under the management and control of harbour commissions, continue under such management and control, but these harbour commissions, together with other public harbours, wharves and breakwaters, now are under the jurisdiction of the Federal Department of Transport.

Newfoundland's records of shipping have been incorporated in the Register of Shipping of Canada and steamship inspection and nautical inspection services provided by the Department of Transport are made available in Newfoundland. Merchant seamen with service in the War of 1939-45 who were eligible for a Special Bonus or a War Service Bonus were provided with similar rehabilitation benefits as those who served in the Canadian Merchant Navy.

Ferry services operated by the Newfoundland Railway prior to union are now under the administration of the Canadian National Railways.

Subsection 1.—Shipping

All waterways including canals and inland lakes and rivers are open on equal terms, except in the case of the coasting trade, to the shipping of all countries of the world so that the commerce of Canada is not dependent entirely upon Canadian shipping. However, a large part of the inland and coastal traffic is carried in ships of Canadian registry.

Canadian Registry.—Under Part 1 of the Canada Shipping Act, every ship included under the definition of 'British Ship' given in Sect. 6 of the Act and controlled as to management and use in Canada must be registered in Canada, unless registered elsewhere in the Commonwealth. An exception is made in the case of ships not exceeding 10 tons register and engaged solely in coastal or inland

* Information and statistics dealing with this subject have been supplied as follows: aids to navigation, canals, harbours, administrative services, and marine services, by the Department of Transport and the National Harbours Board; part of the financial statistics, by the Department of Public Works; shipping subsidies by the Director of Subsidized Steamship Services, Canadian Maritime Commission; Panama Canal, by the Governor of the Panama Canal Zone; other canal traffic and statistics of shipping, by the Public Finance and Transportation Division, Dominion Bureau of Statistics.

navigation. A ship which should be registered, and which is not registered in any part of the Commonwealth, is not entitled to the privileges accorded to British ships. Ships exempt from registry are required to be licensed, and as at Dec. 31, 1951, there were 78,792 licensed ships in Canada as compared with 72,558 in 1950. Vessels about to be built or during construction may be recorded by a Registrar of Ships under the provisions of the Act.

1.—Vessels on the Canadian Shipping Registry, by Provinces, as at Dec. 31, 1949-51

NOTE.—Figures for 1935-48 are given in the corresponding tables of previous Year Books beginning with the 1941 edition.

Province or Territory	1949		1950		1951	
	No.	Net Tons	No.	Net Tons	No.	Net Tons
Newfoundland.....	2,247	101,882	2,114	97,311	1,791	82,716
Prince Edward Island.....	108	7,843	134	7,849	144	7,835
Nova Scotia.....	3,612	164,244	3,892	116,220	4,214	120,365
New Brunswick.....	915	36,741	935	39,279	963	35,554
Quebec.....	1,347	677,215	1,578	590,348	1,696	579,417
Ontario.....	1,556	390,318	1,685	410,185	1,774	432,810
Manitoba.....	102	11,455	100	10,915	107	12,233
Saskatchewan.....	1	147	1	147	1	147
British Columbia.....	4,199	438,898	4,361	389,751	4,583	384,122
Yukon Territory.....	15	3,650	15	3,657	17	3,767
Totals.....	14,102	1,832,393	14,816¹	1,665,697¹	15,292¹	1,659,351¹

¹ Includes inland navigation.

Shipping Traffic.—A brief description of the early development of Canadian shipping is given at pp. 597-598 of the 1941 edition of the Year Book. Complete statistics, comparable with those given for the railways, showing all the freight carried by water, are not yet available. However, there is a record of the number and tonnage of ships calling at all ports at which there are customs collectors and of cargoes of vessels trading between Canadian and foreign ports. Each vessel departing from port makes a statistical report which is forwarded to the Dominion Bureau of Statistics and compilations of shipping statistics are made from these reports. Coastwise cargo is being reported commencing Jan. 1, 1952.

Reports are not made for vessels of less than 10 registered net tons and the tonnage of tugs is the gross ton and not the net ton used for cargo vessels. Fishing vessels are not required by customs regulations to report when operating from certain ports; consequently, the data are not on the same basis as data for cargo vessels.

2.—Vessels Entered at Canadian Ports,¹ 1941-50

NOTE.—Figures for the years ended Mar. 31, 1929-35 are given in the 1941 Year Book, p. 597 and for 1936-40 in the 1948-49 edition, p. 733.

Year	In Foreign Service ²		In Coasting Service		Totals	
	Vessels	Net Tons Registered	Vessels	Net Tons Registered	Vessels	Net Tons Registered
	No.	No.	No.	No.	No.	No.
1941.....	26,203	31,452,400	77,603 ²	48,107,158 ²	103,806 ²	79,559,558 ²
1942.....	24,066	25,640,763	73,366	43,990,764	97,432	69,631,527
1943.....	22,901	26,345,562	65,066	40,300,778	87,967	66,646,340
1944.....	23,786	28,356,681	64,999	43,776,497	88,785	72,133,178
1945.....	24,431	29,655,984	65,410	48,098,201	89,841	77,754,185
1946.....	26,461	30,267,071	67,014	45,559,014	93,475	75,926,085
1947.....	27,868	35,926,095	73,439 ²	51,823,502 ²	101,307 ²	87,749,597 ²
1948.....	31,138	39,443,055	75,141	52,453,382	106,279	91,896,437
1949.....	30,565	40,088,377	82,012	56,037,003	112,577	96,125,380
1950.....	31,420	42,816,949	84,065	56,066,997	115,485	98,883,946

¹ Exclusive of passenger services.

² Sea-going and inland international.

3.—Vessels Entered at each of the Principal Canadian Ports, 1950

NOTE.—For details of shipping at all ports in Canada, see D.B.S. publication, *Shipping Report*.

Province or Territory and Port	In Foreign Service ¹		In Coasting Service		Totals	
	Vessels	Net Tons Registered	Vessels	Net Tons Registered	Vessels	Net Tons Registered
	No.	No.	No.	No.	No.	No.
Newfoundland—						
Bell Island.....	17	58,202	135	423,882	152	482,084
Botwood.....	60	152,933	46	47,115	106	200,048
Cornerbrook.....	107	205,580	350	224,892	457	430,472
Port aux Basques.....	22	19,858	744	313,529	766	333,387
St. John's.....	974	786,754	1,193	339,720	2,167	1,126,474
Totals, Newfoundland²	1,643	1,437,355	6,718	2,186,857	8,361	3,624,212
Prince Edward Island—						
Charlottetown.....	25	30,693	200	59,841	225	90,534
Totals, Prince Edward Island²	49	57,148	315	81,254	364	138,402
Nova Scotia—						
Digby.....	47	10,392	346	491,824	393	502,216
Halifax.....	1,014	3,203,611	962	994,405	1,976	4,198,016
North Sydney.....	160	51,840	1,680	444,471	1,840	496,311
Sydney.....	97	193,276	857	1,325,296	954	1,518,572
Yarmouth.....	367	126,635	396	22,459	763	149,094
Totals, Nova Scotia²	3,199	4,666,771	7,472	3,967,831	10,671	8,634,602
New Brunswick—						
Campobello.....	1,083	17,077	26	435	1,109	17,512
Saint John.....	495	1,451,188	991	789,350	1,486	2,240,538
Totals, New Brunswick²	7,012	1,755,680	2,773	1,163,733	9,785	2,919,413
Quebec—						
Baie Comeau.....	42	80,635	715	279,850	757	360,485
Montreal.....	1,784	4,787,919	3,482	3,980,268	5,266	8,768,187
Port Alfred.....	400	1,225,850	277	808,794	677	2,034,644
Quebec.....	458	1,753,629	2,295	2,177,832	2,753	3,931,461
Three Rivers.....	231	522,306	1,928	1,830,598	2,159	2,352,904
Totals, Quebec²	3,182	8,718,191	11,431	10,318,495	14,613	19,036,686
Ontario—						
Amherstburg.....	559	381,168	73	34,742	632	415,910
Cobourg.....	81	247,433	47	40,583	128	288,016
Cornwall.....	101	126,005	253	300,156	354	426,161
Fort William.....	281	736,835	647	1,494,323	928	2,231,158
Hamilton.....	510	1,638,290	570	656,236	1,080	2,294,526
Kingston.....	384	114,990	580	763,994	964	878,984
Midland.....	54	144,580	216	345,831	270	490,411
Port Arthur.....	244	562,024	948	2,577,878	1,192	3,139,902
Port Colborne.....	260	645,633	670	1,197,753	930	1,843,386
Port McNicoll.....	14	50,885	87	233,840	101	284,725
Prescott.....	386	495,651	236	327,423	622	823,074
St. Catharines.....	33	82,721	96	89,763	129	172,484
Sarnia.....	530	1,015,247	645	1,113,524	1,175	2,128,771
Sault Ste. Marie.....	554	2,060,757	380	557,301	934	2,618,058
Thorold.....	155	255,430	390	525,035	545	780,465
Toronto.....	729	1,542,626	1,295	1,665,431	2,024	3,208,057
Windsor.....	319	816,179	364	457,857	683	1,274,036
Totals, Ontario²	7,155	13,587,995	10,384	14,654,752	17,539	28,242,747
Manitoba (Churchill).....	20	76,560	—	—	20	76,560
British Columbia—						
Nanaimo.....	570	242,265	4,131	3,082,437	4,701	3,324,702
New Westminster.....	597	1,039,413	2,742	1,359,332	3,339	2,398,745
Ocean Falls.....	44	164,951	715	634,585	759	799,536
Port Alberni.....	77	296,781	739	442,518	816	739,299
Powell River.....	220	170,399	3,814	1,427,499	4,034	1,597,898
Prince Rupert.....	1,272	335,120	1,770	641,505	3,042	976,625
Union Bay.....	9	3,033	961	375,051	970	378,084
Vancouver.....	2,437	5,260,548	22,024	10,417,038	24,461	15,677,586
Victoria.....	2,983	4,502,007	4,520	3,767,292	7,503	8,269,299
Totals, British Columbia²	9,154	12,516,906	44,807	23,607,312	53,961	36,124,218
Yukon and Northwest Territories....	6	343	165	86,763	171	87,106
Grand Totals.....	31,420	42,816,949	84,065	56,066,997	115,485	98,883,946

¹ Sea-going and inland international.² Includes other small ports not shown separately.

4.—Vessels Entered at each of the Principal Canadian Ports, 1951

NOTE.—For details of shipping at all ports in Canada, see D.B.S. publication *Shipping Report*.

Province and Port	In Foreign Service ¹		In Coasting Service		Totals	
	Vessels	Net Tons Registered	Vessels	Net Tons Registered	Vessels	Net Tons Registered
	No.	No.	No.	No.	No.	No.
Newfoundland—						
Bell Island.....	102	379,949	125	305,522	227	685,472
Botwood.....	69	181,315	29	57,487	98	238,801
Cornerbrook.....	105	243,994	469	421,436	574	665,430
Port aux Basques.....	13	6,429	777	357,287	790	363,716
St. John's.....	1,051	863,540	1,227	371,842	2,278	1,235,382
Totals, Newfoundland².....	1,936	1,906,285	6,678	2,281,121	8,614	4,187,406
Prince Edward Island—						
Charlottetown.....	20	21,546	193	63,655	213	85,201
Totals, Prince Edward Island²....	43	40,662	305	88,824	348	129,486
Nova Scotia—						
Digby.....	102	26,910	500	655,342	602	682,252
Halifax.....	1,111	3,993,005	977	1,047,473	2,088	5,040,478
North Sydney.....	212	76,764	1,701	493,563	1,913	570,327
Sydney.....	154	334,946	837	1,158,891	991	1,493,837
Yarmouth.....	390	128,951	329	23,677	719	152,628
Totals, Nova Scotia².....	3,645	5,769,708	7,603	3,843,095	11,248	9,612,803
New Brunswick—						
Campobello.....	791	13,723	32	569	823	14,292
Saint John.....	465	1,438,072	1,038	958,216	1,503	2,396,288
Totals, New Brunswick².....	6,748	1,804,516	3,092	1,362,507	9,840	3,167,023
Quebec—						
Baie Comeau.....	43	84,411	857	284,850	900	369,261
Montreal.....	1,809	4,645,440	3,227	3,606,022	5,036	8,251,462
Port Alfred.....	490	1,441,051	855	792,807	1,345	2,233,858
Quebec.....	472	1,941,462	2,392	2,110,129	2,864	4,051,591
Three Rivers.....	257	541,053	2,309	1,634,970	2,566	2,176,023
Totals, Quebec².....	3,392	9,124,178	12,871	10,001,770	16,263	19,125,945
Ontario—						
Amherstburg.....	346	270,138	54	27,725	400	297,863
Cobourg.....	25	25,686	35	46,777	60	72,463
Cornwall.....	111	127,976	246	302,932	357	430,908
Fort William.....	406	1,019,181	791	1,882,852	1,197	2,902,033
Hamilton.....	678	1,901,718	566	606,816	1,244	2,508,534
Kingston.....	218	77,564	782	836,165	1,000	913,729
Midland.....	46	100,184	253	700,159	299	800,343
Port Arthur.....	355	804,830	1,075	3,563,794	1,430	4,368,624
Port Colborne.....	235	538,873	744	1,445,976	979	1,984,854
Port McNicoll.....	8	28,279	144	539,994	152	568,273
Prescott.....	360	538,550	239	322,875	599	861,425
St. Catharines.....	47	96,517	102	89,456	149	185,973
Sarnia.....	636	2,491,204	740	1,352,271	1,376	3,843,475
Sault Ste. Marie.....	546	1,924,926	441	665,748	987	2,590,674
Thorold.....	136	217,312	408	534,644	544	751,956
Toronto.....	930	1,651,901	1,339	1,609,756	2,269	3,261,657
Windsor.....	331	734,032	298	374,158	629	1,108,190
Totals, Ontario².....	7,446	15,118,747	11,075	17,177,898	18,521	32,296,645
Manitoba (Churchill).....	20	84,359	—	—	20	84,359

For footnotes, see end of table, p. 780.

4.—Vessels Entered at each of the Principal Canadian Ports, 1951—concluded

Province or Territory and Port	In Foreign Service ¹		In Coasting Service		Totals	
	Vessels	Net Tons Registered	Vessels	Net Tons Registered	Vessels	Net Tons Registered
	No.	No.	No.	No.	No.	No.
British Columbia—						
Nanaimo.....	484	329,732	3,886	4,148,736	4,370	4,478,468
New Westminster.....	736	1,195,872	2,642	1,495,877	3,378	2,691,749
Ocean Falls.....	48	211,829	792	674,367	840	886,196
Port Alberni.....	83	338,804	626	381,030	709	719,834
Powell River.....	202	225,486	3,492	1,303,079	3,694	1,528,565
Prince Rupert.....	1,379	343,840	1,803	727,266	3,182	1,071,106
Union Bay.....	17	53,478	756	325,729	773	379,207
Vancouver.....	2,424	5,856,781	23,096	11,895,532	25,520	17,752,313
Victoria.....	2,851	4,397,071	4,093	3,472,527	6,944	7,869,598
Totals, British Columbia².....	9,069	13,659,630	44,834	25,989,433	53,903	39,649,063
Yukon and Northwest Territories...	5	257	113	58,150	118	58,407
Grand Totals.....	32,304	47,508,342	86,571	60,802,798	118,875	108,311,140

¹ Sea-going and inland international.² Includes other small ports not shown separately.

Vessels in coasting service and vessels fishing in Canadian waters are not required by customs regulations to report any details of cargoes loaded or unloaded so that cargo data are available only for vessels in foreign service. The cargoes are not cargoes on board but are cargoes unloaded and loaded at the respective ports.

5.—Cargoes at Canadian Ports Loaded or Unloaded from Vessels in Foreign Service, by Provinces, 1947-51

Province and Year	Loaded		Unloaded	
	Tons Weight	Tons Measurement ¹	Tons Weight	Tons Measurement ¹
Newfoundland—				
1949 ²	1,504,651	87	307,051	5,454
1950.....	985,483	530	451,860	1,938
1951.....	1,883,325	2	402,427	2
Prince Edward Island—				
1947.....	58,590	9,795	12,632	—
1948.....	47,511	—	15,853	—
1949.....	65,156	4,560	18,910	—
1950.....	47,050	626	16,539	—
1951.....	44,864	2	28,652	—
Nova Scotia—				
1947.....	4,125,005	27,989	2,645,143	1,275
1948.....	4,498,315	18,492	3,123,670	1,441
1949.....	3,634,676	7,754	1,952,617	4,182
1950.....	3,841,765	5,876	1,879,169	10,666
1951.....	4,018,764	2	1,841,121	2
New Brunswick—				
1947.....	2,239,539	105,879	478,896	44,443
1948.....	2,074,597	92,045	575,165	33,596
1949.....	1,696,869	103,216	561,113	56,185
1950.....	1,160,774	68,419	613,993	126,196
1951.....	1,745,548	2	656,935	2

For footnotes, see end of table.

5.—Cargoes at Canadian Ports Loaded or Unloaded from Vessels in Foreign Service, by Provinces, 1947-51—concluded

Province or Territory and Year	Loaded		Unloaded	
	Tons Weight	Tons Measurement ¹	Tons Weight	Tons Measurement ¹
Quebec—				
1947.....	5,724,483	312,652	6,880,554	47,741
1948.....	5,127,735	295,565	7,846,612	86,914
1949.....	5,551,245	208,106	6,766,754	74,279
1950.....	5,282,576	184,205	9,700,675	277,873
1951.....	7,290,701	§	8,921,562	§
Ontario—				
1947.....	4,067,226	—	20,438,843	—
1948.....	3,809,343	216	22,635,413	1,800
1949.....	4,444,190	—	16,230,850	221
1950.....	4,430,654	—	20,988,359	—
1951.....	5,550,453	—	23,383,058	—
Manitoba—				
1947.....	153,503	—	375	—
1948.....	159,433	—	958	—
1949.....	160,034	—	1,160	—
1950.....	200,846	—	3,200	—
1951.....	203,621	—	6,993	—
British Columbia—				
1947.....	4,876,930	4,427	2,283,806	17,437
1948.....	4,311,539	5,447	2,485,594	37,156
1949.....	5,057,945	2,914	2,302,938	37,601
1950.....	5,016,020	2,779	2,851,311	39,395
1951.....	6,542,254	§	3,028,605	§
Yukon and Northwest Territories—				
1947.....	736	—	109	—
1948.....	717	—	15	—
1949.....	329	—	19	—
1950.....	327	—	7	—
1951.....	269	—	41	—
Totals—				
1947.....	21,246,012	460,742	32,740,358	110,896
1948.....	20,029,190	411,765	36,683,280	160,907
1949.....	22,115,095	326,637	28,141,412	177,922
1950.....	20,965,495	262,435	36,505,113	456,068
1951.....	27,279,799	§	38,269,394	§

¹ One measured ton=40 cubic feet.
measurement combined with tons weight as of January 1951.

² Figures for 9 months, Apr. 1 to Dec. 31.

³ Tons

Subsection 2.—Harbours

Water transportation cannot be studied with any degree of completeness without taking into consideration the co-ordination of land and water transportation at many of the ports. Facilities provided to enable interchange movements include the necessary docks and wharves, some for passenger traffic but most of them for freight, warehouses for the handling of general cargo, and special equipment for such bulk freight as lumber, coal, oil, grain, etc. Facilities may include cold-storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil-storage tanks and, in the chief harbours, dry-dock accommodation.

Eight of the principal harbours of Canada are administered by the National Harbours Board. Seven other harbours come under the supervision of the Department of Transport and are administered by commissions that include municipal as well as Federal Government appointees. In addition, there are about 300 public harbours that are under the direct supervision of the Department of Transport.

These harbours are administered under rules and regulations approved by the Governor General in Council. Harbour masters have been appointed by the Minister of Transport for 131 of these harbours, their remuneration being made from fees levied on vessels under the terms of the Canada Shipping Act.

At most ports, in addition to the harbour facilities operated by the National Harbours Board or other operating commission, there are dock and handling facilities owned by private companies such as railway, pulp and paper, oil, sugar industries, etc. At a number of ports there are also dry docks that are dealt with separately, *see* p. 785.

6.—Facilities of the Six Principal Harbours, as at Dec. 31, 1951

NOTE.—The facilities include those under the control of other agencies as well as those of the National Harbours Board at these ports.

Item	Halifax	Saint John	Quebec	Three Rivers	Montreal	Vancouver
Minimum depth of approach channel ft.	50	30	35	35	35	35
Harbour railway..... miles	31	63	23	5	62	75
Piers, wharves, jetties, etc..... No.	46	22	36	3	105	28
Length of berthing..... ft.	33,420	16,250	32,500	8,690	51,060	31,440
Transit-shed floor space.....sq. ft.	1,429,500	868,000	743,600	193,000	2,179,000	1,415,500
Cold-storage warehouse capacity.....cu. ft.	1,655,350	900,000	500,000	—	2,909,200	3,023,350
Grain Elevators—						
Capacity..... bu.	2,200,000	3,000,000	4,000,000	2,000,000	15,162,000	18,716,500
Loading rate.....bu. per hr.	75,000	150,000	90,000	32,000	400,000	312,000
Floating crane capacity..... tons	75	65	75	—	75	50
Coal-dock storage capacity..... tons	82,000	—	215,000	300,000	1,380,000	—
Oil-tank storage capacity..... gal.	119,245,000	17,026,600	54,186,500	1,410,000	54,000,000	99,490,000

National Harbours Board.—A description of the origin and functions of the National Harbours Board is given at pp. 679-681 of the 1940 Year Book. The Board is responsible for the administration and operation of the following properties (representing a capital investment of approximately \$236,000,000): port facilities such as wharves and piers, transit sheds, grain elevators, cold-storage warehouses, terminal railways, etc., at the harbours of Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill; grain elevators at Prescott and Port Colborne; and the Jacques Cartier Bridge at Montreal. Operating revenue and expenditure for these properties are given in Table 28, pp. 801-802.

Harbour Traffic.—The freight movement through a large port takes a number of different forms. The overseas movement, i.e., the freight loaded on or unloaded from sea-going vessels, frequently constitutes a surprisingly small part of the total. Usually, the volume coming in and going out by coasting vessels is larger. Then there is the in-transit movement in vessels that pass through the harbour without loading or unloading. Finally, there is the movement from one point to another within the harbour, which in many ports amounts to a large volume. It is not possible to obtain statistics of the total freight handled in all the ports and harbours of Canada, as many of them are small and without the staff necessary to obtain a detailed record of freight handled. The National Harbours Board reports annually the water-borne cargo loaded and unloaded at the eight ports under its control. Six of these are among the principal ports of Canada and the cargo handled in each is shown in Table 7. The figures include freight carried by coasting and inland international, as well as by sea-going shipping; they include all cargo loaded or

unloaded whether by facilities under the Board or at private docks and terminals in these ports. Cross-harbour movements, ballast (non-revenue), bunkers, ships' stores, mail and passengers' baggage are excluded.

7.—Principal Commodities in Water-Borne Cargo Loaded and Unloaded at each of Six Principal Ports, 1950 and 1951

Port and Commodity	1950		1951	
	Inward	Outward	Inward	Outward
	tons	tons	tons	tons
Montreal—				
Grain.....	1,768,331	2,087,739	1,506,199	2,842,770
Coal, bituminous.....	1,056,336	114	966,781	—
Gasoline.....	186,729	1,347,791	91,580	1,781,376
Flour, wheat.....	4,731	405,612	22	441,044
Petroleum, fuel.....	655,251	1,131,433	390,360	1,094,562
Petroleum, crude.....	2,284,702	251,561	1,345,935	276,752
Sugar, raw.....	335,241	23,313	309,979	11,055
Motor-vehicles and parts.....	90,657	33,299	41,604	68,645
Lumber (planks, boards and flooring) and square timber.....	17,889	68,900	8,706	70,539
Meats, canned, cured, prepared or preserved.....	2,107	10,995	6,950	7,015
Petroleum, refined, n.e.s.....	2,611	4,874	—	—
Manganese ore.....	112,287	101,090	40,271	40,181
Newsprint.....	1	7,965	8	17,502
Phosphate rock.....	52,238	—	92,445	—
Kerosene.....	29,517	31,084	17,631	29,464
Cement, common or portland.....	109,573	100,652	163,004	82,874
Pulpboard (except wallboard).....	1	7,296	1	12,288
Gypsum, crude.....	169,897	22,750	189,613	34,965
Coal, anthracite.....	294,466	34,960	203,136	11,813
Molasses.....	64,580	69	23,206	4,482
Iron ore.....	220,666	219,174	231,217	231,053
Wood-pulp.....	4,976	28,028	1,953	93,056
Cheese.....	3,568	31,624	1,941	24,176
Totals, 23 Commodities.....	7,466,355	5,950,323	5,632,542	7,175,612
Grand Totals, All Commodities.....	8,579,034	6,736,499	6,797,082	8,119,988
Vancouver—				
Grain.....	—	1,499,545	—	2,441,719
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway).....	1,086,858	95,019	955,565	168,914
Petroleum, crude.....	1,220,065	—	1,224,341	—
Petroleum, fuel.....	522,465	300,428	615,075	313,244
Lumber (planks, boards and flooring) and square timber.....	503,499	482,795	527,817	440,407
Sand and gravel.....	484,042	21,423	395,499	10,991
Newsprint.....	114,440	7,083	142,062	10,399
Gasoline.....	210,128	167,027	253,495	205,313
Coal, bituminous.....	222,721	35,191	126,964	29,834
Flour, wheat.....	29	235,581	76	239,155
Wood-pulp.....	152,545	10,660	237,082	63,600
Fish (including shellfish), canned or preserved.....	22,611	23,612	23,320	20,336
Fertilizers and fertilizer materials.....	17,245	14,109	19,027	10,377
Cement, common or portland.....	130,838	10,600	128,240	10,193
Hog fuel.....	—	109,338	—	86,168
Rock and stone.....	8,248	90,568	18,337	180,764
Kerosene.....	82,039	40,809	62,079	38,573
Totals, 17 Commodities.....	4,777,773	3,143,788	4,728,979	4,274,388
Grand Totals, All Commodities.....	6,090,660	3,966,293	5,961,684	5,196,216
Halifax—				
Petroleum, crude.....	1,297,694	—	1,044,436	—
Petroleum, fuel.....	131,716	583,616	366,300	596,484
Coal, bituminous.....	201,210	2	136,507	5
Gasoline.....	165,756	221,967	292,853	240,985
Grain.....	85	199,220	—	174,407
Flour, wheat.....	760	79,889	21	94,559
Motor-vehicles and parts.....	74,208	5,293	23,901	7,698

7.—Principal Commodities in Water-Borne Cargo Loaded and Unloaded at each of Six Principal Ports, 1950 and 1951—concluded

Port and Commodity	1950		1951	
	Inward	Outward	Inward	Outward
	tons	tons	tons	tons
Halifax—concluded				
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway).....	57	17,455	59	15,637
Lumber (planks, boards and flooring) and square timber.....	1,874	43,696	3,466	67,106
Meats, canned, cured, prepared or preserved.....	1,412	5,571	1,787	5,366
Fish (including shellfish), fresh or frozen.....	35,887	6,178	37,030	1,790
Fish (including shellfish), dried, pickled, salted or smoked.....	27,188	56,621	31,708	57,551
Totals, 12 Commodities.....	1,937,897	219,508	1,938,098	1,261,588
Grand Totals, All Commodities.....	2,251,211	1,472,950	2,296,266	1,582,009
Saint John—				
Grain.....	—	316,604	—	357,250
Flour, wheat.....	—	161,932	1	256,037
Coal, bituminous.....	18,587	44	—	—
Lumber (planks, boards and flooring) and square timber.....	9,719	62,958	7,786	73,179
Sugar, raw.....	197,540	—	184,148	176
Motor-vehicles and parts.....	138,469	18,657	66,427	8,598
Newsprint.....	—	38,506	—	50,677
Gasoline.....	125,793	15,783	146,190	16,551
Petroleum, fuel.....	149,653	11,245	203,459	15,812
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway).....	459	8,076	65	35,369
Potatoes.....	155	71,623	66	40,172
Totals, 11 Commodities.....	640,375	705,428	608,142	853,821
Grand Totals, All Commodities.....	1,049,073	1,022,227	1,028,729	1,328,836
Three Rivers—				
Pulpwood.....	1,198,560	—	1,617,867	—
Coal, bituminous.....	467,923	—	492,509	—
Grain.....	348,503	390,855	308,599	358,843
Paper, newsprint.....	—	136,350	—	130,242
Lumber (planks, boards and flooring) and square timber.....	7,324	1,937	9,111	1,815
Gasoline.....	28,652	1,554	36,535	1,613
Sulphur.....	22,942	—	18,551	—
Petroleum, fuel.....	82,018	4,049	105,148	6,918
Sand and gravel.....	—	5,368	—	7,800
Totals, 9 Commodities.....	2,155,922	540,113	2,588,320	507,231
Grand Totals, All Commodities.....	2,209,472	566,742	2,626,993	557,021
Quebec—				
Pulpwood.....	417,109	—	536,868	14,260
Coal, bituminous.....	617,537	633	621,881	3,045
Gasoline.....	206,507	2,644	206,867	10,621
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway).....	785	2,388	950	736
Petroleum, fuel.....	326,683	2,296	365,290	1,138
Lumber (planks, boards and flooring) and square timber.....	12,408	11,488	7,872	9,380
Cement, common or portland.....	59,288	203	57,862	1,473
Totals, 7 Commodities.....	1,640,317	19,652	1,797,590	40,653
Grand Totals, All Commodities.....	1,831,822	429,458	1,948,999	863,951

Dry Docks.—The Department of Public Works of the Federal Government has constructed five dry docks. The dock at Kingston, Ont., is at present under lease to the Kingston Shipbuilding Company. There are two dry docks at Esquimalt, B.C., and at Lauzon, Que. The old Esquimalt dry dock was temporarily transferred to the Department of National Defence on Nov. 1, 1934, and, when commercially required, it will be returned to the control of the Department of Public Works. Each of the larger dry docks at Lauzon, Que., and Esquimalt, B.C., can be divided for use of small vessels; the Lauzon dock cost approximately \$4,500,000 and the Esquimalt dock approximately \$7,000,000.

The dimensions of the dry docks owned by the Federal Government and the dimensions and cost of those subsidized under the Dry Dock Subsidies Act (9-10 Edw. VII, c. 17) are given at p. 720 of the 1948-49 Year Book. Subsidy payments have now been completed on the *Duke of Connaught* dock at Montreal, Que.

Subsection 3.—Canals

The canals and canalized waters of Canada, under the jurisdiction of the Department of Transport, comprise a series of waterways providing navigation for 1,875 miles inland from salt water. The canals may be divided into two classes: (1) the main or primary canals on the St. Lawrence River and the Great Lakes, including the Lachine, Soulanges, Cornwall and Williamsburg Canals on the St. Lawrence River, the Welland Ship Canal between Lakes Ontario and Erie, and the Sault Ste. Marie Canal between Lakes Huron and Superior; and (2) subsidiary or secondary canals including the St. Peters Canal between Bras d'Or Lake and the Atlantic Ocean, Cape Breton, the St. Ours and Chambly Canals on the Richelieu River, the St. Anne, Carillon and Grenville Canals on the Ottawa River, the Rideau Canal between the Ottawa River and Lake Ontario, and the Trent and Murray Canals between Lake Ontario and Georgian Bay.

The importance of this transportation system as a highway of commerce is evidenced by the fact that, during 1951, 29,325,034 tons of freight passed through, surpassing the peak reached in 1950 when freight traffic amounted to 27,439,076 tons and comparing with 24,636,462 tons in 1938. In 1951, 25,548 vessels passed through the canals compared with 24,420 in 1950.

In addition to freight and passenger vessels there are thousands of pleasure craft locked through the canals. The number of passengers on vessels locking at Sault Ste. Marie was 88,153 in 1951 as compared with 56,765 in 1950.

Revenue from canals during the year ended Mar. 31, 1952, amounted to \$1,502,232, of which \$1,231,774 were derived from rentals for hydraulic and land privileges and wharfage. In the previous fiscal year the total revenue was \$1,335,286, with rentals and wharfage \$1,152,449.

The names of the various canals along these routes, their locations and lengths, together with the numbers and dimensions of the locks thereon and other information may be found in the bulletin, *Canals of Canada*, published by the Department of Transport.

Under the jurisdiction of the Federal Department of Public Works are the St. Andrews Lock (length, width and draught, respectively, 215, 45 and 17 ft.) at Selkirk on the Red River, Man., and the lock at Poupore, Que. There are also a few small isolated locks, each controlled under the authority of the province in which it is situated.

8.—Lengths of Channels and Lock Dimensions under the control of the Department of Transport, as at Dec. 31, 1951

Name	Location	Length of Channel	Locks			
			No.	Minimum Dimensions		
				Length	Width	Depth
		miles		ft.	ft.	ft.
St. Lawrence—						
Lachine.....	Montreal to Lachine.....	8.74	5	270	45	14 ¹
Soulanges.....	Cascades Point to Coteau Landing..	14.67	5	280	46	15 ¹
Cornwall.....	Cornwall to Dickinsons Landing.....	11.00	6	270	43.67	14 ¹
Farran Point.....	Farran Point Rapids.....	1.28	1	800	50	16 ¹
Rapide Plat.....	Morrisburg.....	3.89	2	270	45	14 ¹
Galop.....	Iroquois to Cardinal.....	7.36	3	270	45	14 ¹
Welland Ship.....	Port Weller, Lake Ontario, to Port Colborne, Lake Erie.....	27.60	8	859	80	30 ²
Sault Ste. Marie.....	Sault Ste. Marie, Ont.....	1.38	1	900	60	18.25
Richelieu River—						
St. Ours.....	St. Ours, Que.....	0.12	1	339	45	12
Chambly.....	Chambly to St. Johns, Que.....	11.78	9	120.5	23.25	6.5
Ottawa River—						
St. Anne.....	Junction of St. Lawrence and Ottawa Rivers.....	0.12	1	200	45	9
Carillon.....	Carillon Rapids, Ottawa River.....	0.94	2	200	45	9
Grenville.....	Long Sault Rapids, Ottawa River.....	5.94	5	200	45	9
Miscellaneous—						
Rideau.....	Ottawa to Kingston.....	123.53	47	134	33	5.5
	Rideau Lake to Perth (Tay Branch)	6.82	2	134	33	5.5
Trent.....	Trenton to Peterborough Lock, Peterborough.....	88.74	18	175	33	8 ³
	Peterborough Lock to Swift Rapids.	135.71	24	134	33	6
	Swift Rapids to Big Chute ⁴	8.00	—	...	...	...
	Big Chute to Port Severn.....	8.11	1	100	25	6
	Sturgeon Lake to Lindsay (Scugog Branch).....	10.00	1	142	33	6
	Lindsay to Port Perry (Scugog Branch).....	25.00	—	...	...	...
Murray.....	Isthmus of Murray—Bay of Quinte	7.53 ⁵	—	...	...	...
St. Peters.....	St. Peters Bay to Bras d'Or Lakes, Cape Breton, N.S.....	0.50	1	300	48	18 ⁶

¹ Navigable depths are occasionally less at times of extremely low water. ² Minimum depth between locks 23 ft.

³ Notice must be given by vessels of more than 6 ft. 10 in. draught. ⁴ Marine railways in this section limit navigation to vessels 50 ft. long, 13.5 ft. beam, 4 ft. draught—weight not over 15 tons.

⁵ Minimum depth of canal with Lake Ontario at elevation 244 ft. above sea level is 9.5 ft.

⁶ The depth of canal prism is 17 ft.

Canal Traffic.—The canals of Canada are open to the vessels and traffic of all nations upon equal terms and thus United States traffic constitutes an important part of the total carried through certain canals, especially the Welland Ship Canal. This is shown in Tables 9 and 11. More complete details of the traffic through canals may be found in the D.B.S. annual report, *Canal Statistics*.

9.—Traffic through Canadian Canals, by Nationality of Vessel and Origin of Freight, Navigation Seasons, 1942-51

NOTE.—Figures include duplications where cargoes use two or more canals. Figures from 1886 are available in the corresponding tables of previous Year Books beginning with the 1902 edition.

Navigation Season	Nationality of Vessel				Origin of Freight Carried				
	Canadian		United States ¹		Canada		United States ¹		Total
	Vessels	Registered Tonnage	Vessels	Registered Tonnage	Tons	P.C. of Total	Tons	P.C. of Total	Tons
	No.	No.	No.	No.					
1942..	22,150	18,952,917	3,751	8,404,363	7,764,804	37.2	13,134,835	62.8	20,899,639
1943..	20,855	18,273,304	2,617	5,686,958	7,838,429	36.5	13,637,765	63.5	21,476,194
1944..	20,780	18,191,826	1,911	4,541,575	8,002,746	38.8	12,612,761	61.2	20,615,507
1945..	21,064	19,068,308	1,553	3,426,069	10,491,263	47.0	11,829,136	53.0	22,320,399
1946..	17,199	16,206,415	1,794	3,221,008	8,904,733	47.7	9,750,186	52.3	18,654,919
1947..	18,542	18,613,576	2,332	3,796,293	10,288,481	47.8	11,225,458	52.2	21,513,939
1948..	19,859	19,723,768	2,784	4,219,539	11,169,714	47.4	12,389,599	52.6	23,559,313
1949..	21,724	20,773,831	2,495	3,260,038	14,800,509	60.7	9,573,243	39.3	24,373,752
1950..	21,179	21,989,263	3,241	3,514,202	15,138,009	55.2	12,301,067	44.8	27,439,076
1951..	22,141	22,951,468	3,407	4,297,672	16,004,284	54.6	13,320,750	45.4	29,325,034

¹ Figures include a small percentage of vessels and tonnage of freight of other foreign nationalities.

10.—Tonnage of Products carried by Canal, by Class of Commodity, Navigation Seasons, 1950 and 1951

NOTE.—Figures include duplications where cargoes use two or more canals.

Canal	Agricultural Products	Animal Products	Manufactures and Miscellaneous	Forest Products	Mineral Products	Total
	tons	tons	tons	tons	tons	tons
1950						
Sault Ste. Marie.....	1,083,959	168	779,967	145,038	292,631	2,301,763
Welland Ship.....	3,671,726	790	3,587,089	532,045	6,948,923	14,740,573
St. Lawrence River.....	2,798,348	4,929	3,433,116	709,908	3,622,970	9,969,271
Richelieu River.....	—	30	105,118	—	225	105,373
St. Peters.....	2,210	682	1,324	19	3,570	7,805
Murray.....	—	—	2,969	—	—	2,969
Ottawa River.....	—	—	7,929	—	286,675	294,604
Rideau.....	—	—	92	229	894	1,215
Trent.....	10	—	441	142	9	602
St. Andrews.....	514	1,958	3,853	8,576	—	14,901
Totals, 1950.....	7,556,767	8,557	7,921,898	1,395,957	10,555,897	27,439,076
1951						
Sault Ste. Marie.....	1,202,951	159	1,091,682	189,904	320,696	2,805,392
Welland Ship.....	4,118,184	300	4,075,498	613,961	7,389,981	16,197,924
St. Lawrence River.....	2,693,613	1,612	3,391,336	794,515	3,035,781	9,916,857
Richelieu River.....	—	—	97,729	—	405	98,134
St. Peters.....	2,104	699	1,337	1,488	2,550	8,178
Murray.....	—	—	3,333	—	—	3,333
Ottawa River.....	—	—	3,421	—	273,750	277,171
Rideau.....	—	—	195	273	730	1,198
Trent.....	13	—	258	83	—	354
St. Andrews.....	415	3,589	6,001	6,178	310	16,493
Totals, 1951.....	8,017,280	6,359	8,670,790	1,606,402	11,024,203	29,325,034

11.—Canal Traffic, by Direction and Origin, Navigation Seasons, 1950 and 1951

NOTE.—Figures include duplications where cargoes use two or more canals.

Canal	From Canadian to Canadian Ports		From Canadian to United States Ports ¹		From United States to United States Ports ¹		From United States ¹ to Canadian Ports	
	Up	Down	Up	Down	Up	Down	Up	Down
	tons	tons	tons	tons	tons	tons	tons	tons
1950								
Sault Ste. Marie....	517,607	1,023,655	17,939	310,286	69,042	4,168	257,683	101,383
Welland Ship.....	1,095,915	3,719,508	854,276	44,584	741,949	536,055	39,867	7,708,419
St. Lawrence River...	3,027,672	3,112,987	973,629	34,102	118,794	79,160	37,705	2,585,222
Richelieu River....	55,667	3,044	27,786	—	—	—	—	18,876
St. Peters.....	2,795	5,010	—	—	—	—	—	—
Murray.....	—	225	—	—	—	—	—	2,744
Ottawa River.....	5,742	285,400	—	3,462	—	—	—	—
Rideau.....	373	842	—	—	—	—	—	—
Trent.....	229	373	—	—	—	—	—	—
St. Andrews.....	10,531	4,370	—	—	—	—	—	—
Totals, 1950....	4,716,531	8,155,414	1,873,630	392,434	929,785	619,383	335,255	10,416,644

Canal	Traffic by Direction		Origins of Cargo		Total Cargo	Comparison with 1949
	Up	Down	Canada	United States ¹		
1950—concluded	tons	tons	tons	tons	tons	tons
Sault Ste. Marie.....	862,271	1,439,492	1,869,487	432,276	2,301,763	2,301,514
Welland Ship.....	2,732,007	12,008,566	5,714,283	9,026,290	14,740,573	13,692,209
St. Lawrence River....	4,157,800	5,811,471	7,148,390	2,820,881	9,969,271	7,960,194
Richelieu River.....	83,453	21,920	86,497	18,876	105,373	106,481
St. Peters.....	2,795	5,010	7,805	—	7,805	12,679
Murray.....	—	2,969	225	2,744	2,969	700
Ottawa River.....	5,742	288,862	294,604	—	294,604	282,330
Rideau.....	373	842	1,215	—	1,215	1,163
Trent.....	229	373	602	—	602	418
St. Andrews.....	10,531	4,370	14,901	—	14,901	16,064
Totals, 1950....	7,853,201	19,583,875	15,138,009	12,301,067	27,439,076	24,373,752

Canal	From Canadian to Canadian Ports		From Canadian to United States Ports ¹		From United States to United States Ports ¹		From United States ¹ to Canadian Ports	
	Up	Down	Up	Down	Up	Down	Up	Down
	tons	tons	tons	tons	tons	tons	tons	tons
1951								
Sault Ste. Marie....	584,009	1,154,309	5,553	518,864	92,463	8,138	328,346	113,710
Welland Ship.....	1,251,966	4,080,724	882,797	75,000	575,226	1,034,177	42,450	8,255,584
St. Lawrence River...	2,916,893	3,132,872	991,357	23,714	103,260	93,598	35,041	2,620,122
Richelieu River....	50,875	3,310	27,672	—	—	—	—	16,277
St. Peters.....	3,143	5,035	—	—	—	—	—	—
Murray.....	975	—	—	—	—	—	—	2,358
Ottawa River.....	1,250	272,500	—	3,421	—	—	—	—
Rideau.....	315	883	—	—	—	—	—	—
Trent.....	132	222	—	—	—	—	—	—
St. Andrews.....	10,421	6,072	—	—	—	—	—	—
Totals, 1951....	4,819,979	8,655,927	1,907,379	620,999	770,949	1,135,913	405,837	11,008,051

Canal	Traffic by Direction		Origins of Cargo		Total Cargo	Comparison with 1950
	Up	Down	Canada	United States ¹		
1951—concluded	tons	tons	tons	tons	tons	tons
Sault Ste. Marie.....	1,010,371	1,795,021	2,262,735	542,657	2,805,392	2,301,763
Welland Ship.....	2,752,439	13,445,485	6,290,487	9,907,437	16,197,924	14,740,573
St. Lawrence River....	4,046,551	5,870,306	7,064,836	2,852,021	9,916,857	9,969,271
Richelieu River.....	78,547	19,587	81,857	16,277	98,134	105,373
St. Peters.....	3,143	5,035	8,178	—	8,178	7,805
Murray.....	975	2,358	975	2,358	3,333	2,969
Ottawa River.....	1,250	275,921	277,171	—	277,171	294,604
Rideau.....	315	883	1,198	—	1,198	1,215
Trent.....	132	222	354	—	354	602
St. Andrews.....	10,421	6,072	16,493	—	16,493	14,901
Totals, 1951....	7,904,144	21,420,890	16,004,284	13,320,750	29,325,034	27,439,076

¹Figures for the United States include small percentages of traffic from other foreign countries.

The figures in Tables 10 and 11 include duplications where the same freight passes through two or more canals, but in Table 12 duplications in the traffic passing through the St. Lawrence and Welland Ship Canals and the Canadian lock at Sault Ste. Marie have been eliminated wherever possible.

Grain trans-shipped at Georgian Bay, Lake Erie, or other ports above Montreal, is treated as new cargo and as most of this grain has passed through either the Canadian or United States locks at Sault Ste. Marie there are still duplications in the data because of this treatment. These duplications cannot be avoided when net totals for the Canadian canals are computed because it is impossible to ascertain which lock at Sault Ste. Marie was used by the grain reloaded at Port Colborne, Ont., or other trans-shipment port.

12.—St. Lawrence-Great Lakes Traffic using St. Lawrence, Welland Ship and Sault Ste. Marie Canals, 1950 and 1951

Canals Used	Up-Bound Freight	Down-Bound Freight	Total
	tons	tons	tons
1950			
Traffic using Canadian Canals—			
St. Lawrence only.....	2,675,363	2,599,967	5,275,330
St. Lawrence and Welland Ship.....	1,279,287	2,591,982	3,871,269
St. Lawrence, Welland Ship and Sault Ste. Marie ¹	184,381	358,422	542,803
Welland Ship only.....	985,320	6,432,014	7,417,334
Welland Ship and Sault Ste. Marie ¹	283,019	2,626,148	2,909,167
Sault Ste. Marie only.....	554,723	912,046	1,466,769
Totals, Traffic using Canadian Canals.....	5,962,093	15,520,579	21,482,672
Totals, Traffic using United States Locks at Sault Ste. Marie only.....	16,090,436	87,803,539	103,893,975
Totals, Canal Traffic, 1950.....	22,052,529	103,324,118	125,376,647
1951			
Traffic using Canadian Canals—			
St. Lawrence only.....	2,512,772	2,743,503	5,256,275
St. Lawrence and Welland Ship.....	1,309,450	2,487,909	3,797,359
St. Lawrence, Welland Ship and Sault Ste. Marie ¹	213,769	377,673	591,442
Welland Ship only.....	918,312	6,922,397	7,840,709
Welland Ship and Sault Ste. Marie ¹	310,908	3,657,506	3,968,414
Sault Ste. Marie only.....	648,038	1,206,347	1,854,385
Totals, Traffic using Canadian Canals.....	5,913,249	17,395,335	23,308,584
Totals, Traffic using United States Locks at Sault Ste. Marie only.....	13,323,650	103,948,286	117,276,936
Totals, Canal Traffic, 1951.....	19,241,899	121,343,621	140,585,520

¹ Through both Canadian and United States locks at Sault Ste. Marie.

Traffic through the Sault Ste. Marie canals, Canadian and United States, has been approximately twice as heavy as the traffic through the Panama Canal during the latest ten years for which records are available, and in 1940 it was almost three times as heavy. Canal traffic has varied from 20,484,000 tons in 1932, which was less than the Panama traffic, to 120,200,814 tons in 1942. The dominant traffic, from a tonnage aspect, is iron ore and during the past 50 years this has fluctuated from 4,901,000 tons in 1892, an average of 50,000,000 tons in the 1920's, a low of 3,607,000 tons in 1932 to a peak of 94,326,578 tons in 1942. Although wheat has ranged as low as only 7 p.c. of the iron-ore tonnage, its value has been greater, generally, than that of the iron-ore traffic, and has been the most valuable single commodity passed through the canals; in 1928 the value of wheat passed through the canals was 40 p.c. of the value of all traffic. Other grains have been about one-quarter to one-fifth of the wheat tonnage and a smaller ratio of the value.

Soft coal has, generally, been second in tonnage to iron ore increasing from 8,676,297 tons during the 1949 season to 13,301,048 tons in 1950; in 1951, however, there was a decline to 10,684,734 tons.

The Panama Canal.—The Panama Canal, which was opened to commercial traffic on Aug. 15, 1914, has been a waterway of great importance to the ports of British Columbia, from which vessels leave direct for British and European ports throughout the year. As an alternative route to that of the transcontinental railway lines, such a passage by water is of vital importance in the solution of the larger transportation problems of the Continent. During World War I (1914-18), the great expectations based upon the opening of the Canal were not realized, owing to the scarcity of shipping. However, with the post-war decline in ocean freight rates, an increase in traffic between Canada's Pacific ports and Europe took place and, while the proportion carried in vessels of Canadian registry was comparatively small, the cargo tonnage, nevertheless, assumed considerable proportions. During World War II (1939-45), the volume of Canadian traffic through the Canal was greatly reduced.

13.—Traffic to and from the East and West Coasts of Canada, via the Panama Canal, Years Ended June 30, 1942-51

NOTE.—Figures for the years 1921-28 are given in the 1938 Year Book, p. 707, and those for 1929-41 in the 1948-49 edition, p. 738.

Year	Originating on—		Destined for—		Year	Originating on—		Destined for—	
	West Coast	East Coast	West Coast	East Coast		West Coast	East Coast	West Coast	East Coast
	long tons	long tons	long tons	long tons		long tons	long tons	long tons	long tons
1942.....	374,073	135,655	36,709	152,807	1947.....	2,981,348	316,898	132,521	99,745
1943.....	723,528	95,788	—	21,611	1948.....	2,824,394	244,121	162,561	67,215
1944 ¹	363,220	17,283	30,044	—	1949.....	2,298,492	188,506	154,524	145,477
1945 ¹	679,079	65,395	366,118	30,540	1950.....	2,707,047	185,076	226,673	143,395
1946.....	1,756,989	184,850	111,161	62,516	1951.....	2,910,246	240,904	372,534	142,741

¹ Approximate—exact figures not available.

14.—Commercial Traffic through the Panama Canal, Years Ended June 30, 1942-51

NOTE.—Figures from 1915 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

Year	Atlantic to Pacific		Pacific to Atlantic		Totals	
	Vessels	Cargo Tonnage	Vessels	Cargo Tonnage	Vessels	Cargo Tonnage
	No.	long tons	No.	long tons	No.	long tons
1942.....	1,227	4,684,922	1,461	8,922,522	2,688	13,607,444
1943.....	824	4,945,267	998	5,654,699	1,822	10,599,966
1944.....	671	3,354,349	891	3,649,138	1,562	7,003,487
1945.....	924	4,234,935	1,015	4,368,072	1,939	8,603,607
1946.....	1,516	6,118,085	2,231	8,859,855	3,747	14,977,940
1947.....	2,021	8,294,820	2,239	13,375,698	4,260	21,670,518
1948.....	2,286	8,679,140	2,392	15,438,648	4,678	24,117,788
1949.....	2,387	9,899,088	2,406	15,406,070	4,793	25,305,158
1950.....	2,689	9,483,863	2,759	19,388,430	5,448	28,872,293
1951.....	2,784	11,132,472	2,809	18,940,550	5,593	30,073,022

Subsection 4.—Aids to Navigation

Included under this heading are the lighthouses and the whole system of marine danger signals on the east and west coasts of Canada, on Hudson Bay and Strait, the St. Lawrence River and Gulf, the inland rivers and lakes, and at the entrances to harbours—a very extensive system designed to provide safe navigation in all Canadian waters. In addition, a pilotage service is maintained in waters where navigation is difficult; this service is described under marine services at p. 792. As a further aid to safe navigation, there are chains of radio signal and direction-finding stations which are described under radiotelegraphy at pp. 839-840. Lists of aids to navigation, with the exception of very minor ones, are published by the Department of Transport.

15.—Marine Danger Signals maintained in Canada, Years Ended Mar. 31, 1946-52

NOTE.—In addition to the aids to navigation listed, approximately 9,006 unlighted buoys, balises, dolphins and beacons are maintained. A table showing marine danger-signals maintained during the years ended Mar. 31, 1929-40, is given in the 1941 Year Book, p. 581. Figures for 1942 will be found in the 1948-49 edition, p. 716, and for 1943-45 in the 1950 edition, p. 766.

Type of Signal	1946	1947	1948	1949	1950	1951	1952
	No.	No.	No.	No.	No.	No.	No.
Lights.....	2,107	2,320	2,469	2,491	2,778	2,841	2,861
Lightships.....	6	8	8	8	8	8	8
Light-keepers.....	1,132	1,122	1,120	1,094	1,416	1,353	1,131
Fog whistles.....	13	8	9	11	18	22	23
Sirens.....	3	2	2	2	3	3	3
Diaphones.....	170	169	169	176	207	212	213
Fog bells.....	49	39	37	38	43	44	46
Hand fog horns.....	149	135	137	137	134	133	127
Hand fog bells.....	4	9	10	10	10	10	12
Gas and combination gas, whistling and bell buoys...	435	541	552	585	618	655	681
Whistling buoys.....	41	40	39	39	38	38	37
Bell buoys.....	123 ¹	118	112	113	109	110	113
Fog guns and bombs.....	13	12	12	11	11	10	9
Fog alarm stations only.....	13	10	10	11	15	15	15

¹ Includes one submarine bell.

Navigable waters have been improved greatly by dredging in channels and harbours, by the removal of obstructions, and by the building of remedial works to maintain or control water levels. The largest task of this nature has been the St. Lawrence River Ship Channel. An extensive floating plant is in service to maintain and improve the deep-water channel from Montreal, Que., to the sea for ocean-going shipping. Incidental to these developments of navigable waters are works to guard shorelines and prevent erosion, and for the control of roads and bridges that cross navigable channels. Ice-breaking operations are carried on at the beginning and at the end of winter to prolong the season of navigation in important waters that freeze over—particularly in connection with sea-going shipping from Montreal—and to prevent flood conditions during the spring ice break-up.

16.—Seasons of Open Navigation on the St. Lawrence Ship Channel, 1933-52

NOTE.—Figures from 1882 are given in the corresponding table of previous Year Books, beginning with the 1934-35 edition.

Year	Channel Open, Quebec to Montreal ¹	First Arrival from Sea, Montreal Harbour	Last Departure for Sea, Montreal Harbour	Year	Channel Open, Quebec to Montreal ¹	First Arrival from Sea, Montreal Harbour	Last Departure for Sea, Montreal Harbour
1933.....	Mar. 23	Apr. 14	Dec. 6	1943.....	Apr. 29	May 24	Dec. 13
1934.....	" 28	" 26	" 8	1944.....	" 20	Apr. 20	" 9
1935.....	" 30	" 15	" 9	1945.....	" 1	" 9	" 3
1936.....	" 28	" 13	" 11	1946.....	" 1	" 12	" 18
1937.....	Apr. 9	" 19	" 8	1947.....	" 16	" 19	" 5
1938.....	" 12	" 18	" 4	1948.....	" 10	" 19	" 10
1939.....	" 29	" 29	" 12	1949.....	" 7	" 7	" 15
1940.....	" 23	" 24	" 5	1950.....	" 18	" 18	" 7
1941.....	" 14	" 19	" 17	1951.....	" 11	" 13	" 13
1942.....	" 17	May 2	" 16	1952.....	" 12	" 13	" 10

¹"Channel Open" means the route can be navigated although there may be floating ice in the river.

Subsection 5.—Marine Services of the Federal Government

The services covered in this Subsection are those dealing with steamship inspection, pilotage service, sea-faring personnel, and the operations of the Canadian Government Merchant Marine Limited, and the Canadian National (West Indies) Steamships Limited.

Steamship Inspection.—The Steamship Inspection Service, provided for under Part VII of the Canada Shipping Act, 1934, consists of a headquarters staff at Ottawa and staffs of inspectors at the principal ocean and inland ports. The Board of Steamship Inspection decides on questions arising out of the administration of the Act. The Service is responsible for the administration and carrying out of the provisions of the Act respecting the periodic inspection of power-driven ships and the issue of inspection certificates; the assignment of load lines; the conditions under which dangerous goods may be carried in ships; the protection against accident of workers employed in loading or unloading ships; and also for the administration and carrying out of the provisions relating to the certification and employment of marine engineers.

17.—Summary Statistics of Steamship Inspection, Year Ended Mar. 31, 1951

Port	Vessels Subject to Inspection when in Commission		Vessels Inspected				Vessels Not Inspected			
			Registered or Owned in Canada		Registered or Owned Elsewhere					
			No.	gross tonnage	No.	gross tonnage			No.	gross tonnage
St. John's.....	60	21,598	60	21,598	—	—	—	—	—	—
Halifax.....	184	324,831	178	284,947	3	29,478	3	10,406	—	—
Saint John.....	42	37,006	42	37,006	—	—	—	—	—	—
Quebec.....	77	80,146	71	78,688	—	—	6	1,458	—	—
Sorel.....	81	61,825	49	50,588	—	—	32	11,237	—	—
Montreal.....	190	417,853	104	264,437	—	—	86	153,416	—	—
Kingston.....	79	84,193	75	82,500	—	—	4	1,693	—	—
Toronto.....	169	317,038	167	316,694	—	—	2	344	—	—
St. Catharines.....	61	156,033	61	156,033	—	—	—	—	—	—
Collingwood.....	118	148,101	101	147,165	—	—	17	936	—	—
Midland.....	14	1,071	13	1,035	—	—	1	36	—	—
Port Arthur.....	133	32,573	53	26,315	—	—	80	6,258	—	—
Vancouver.....	425	209,947	375	202,125	1	245	49	7,577	—	—
Victoria.....	63	75,153	50	56,431	—	—	13	18,722	—	—
Totals.....	1,696	1,967,368	1,399	1,725,562	4	29,723	293	212,083	—	—

Pilotage.—Pilotage service functions under the provisions set forth in Part VI of the Canada Shipping Act, 1934. Qualified pilots may offer their services to the stranger in local and confined waters. At the same time, pilotage might also be considered as a method of insurance.

There are 42 pilotage districts in Canada, nine of which are under the Minister of Transport as pilotage authority (*see* Table 18). The other districts function under local pilotage authorities appointed by the Governor in Council under the provisions of the Canada Shipping Act, 1934.

In addition, there are 21 districts in the Province of Newfoundland under local pilotage authorities, but as Part VI, Pilotage, of the Canada Shipping Act, 1934, is not yet applicable to this province, these districts are not yet under the jurisdiction of the Minister of Transport.

Table 18 shows, by districts, the number and aggregate tonnage of ships using pilots during the years ended Mar. 31, 1950 and 1951. Corresponding statistics are not available for the St. Lawrence-Kingston-Ottawa district.

18.—Pilotage Service by Districts, Years Ended Mar. 31, 1950 and 1951

District	1950		1951	
	Ships	Tonnage	Ships	Tonnage
	No.		No.	
Bras d'Or Lakes, N.S.....	36	98,166	60	164,679
Sydney, N.S.....	1,272	3,307,029	1,589	3,490,551
Halifax, N.S.....	2,554	8,621,931	2,576	8,623,043
Saint John, N.B.....	1,176	3,405,961	1,087	3,251,310
Quebec, Que.....	4,000	12,291,031	4,197	13,595,068
Montreal, Que.....	6,425	14,729,606	7,523	16,565,344
Churchill, Man.....	32	135,802	40	153,138
British Columbia.....	2,944	7,715,229	3,210	7,750,099
Totals.....	18,439	50,304,755	20,287	53,593,232

Seamen Shipped and Discharged.—Seamen shipped and discharged at Canadian ports under the provisions of the Canada Shipping Act, 1934, during the years ended Mar. 31, 1942-51, are shown in Table 19.

19.—Seamen Shipped and Discharged at Canadian Ports, Years Ended Mar. 31, 1942-51

NOTE.—Figures from 1918 are given in the corresponding tables of previous Year Books beginning with the 1941 edition.

Year	Seamen Shipped	Seamen Discharged	Year	Seamen Shipped	Seamen Discharged
	No.	No.		No.	No.
1942.....	23,064	20,312	1947.....	43,973	42,205
1943.....	19,255	15,250	1948.....	59,768	60,793
1944.....	26,068	20,491	1949 ¹	50,379	49,544
1945.....	29,230	25,056	1950 ²	43,677	43,194
1946.....	30,361	27,042	1951 ²	40,241	40,535

¹ Includes 1,641 seamen shipped and 1,288 seamen discharged in Newfoundland during the period Apr. 1 to Dec. 31, 1949.

² Includes Newfoundland.

Canadian Government Merchant Marine Limited.—The circumstances under which the Canadian Government became possessed of, and responsible for, the operations of a merchant marine are explained at p. 776 of the 1934-35 Year Book. A table showing the operating results from 1919 to 1936 is given at p. 689 of the 1937 Year Book.

The original fleet of the Canadian Government Merchant Marine Limited consisted of 66 vessels with a total deadweight tonnage of 391,212. The original cost of the fleet was \$79,661,921 and the capital loss thereon was \$74,239,356, the total capital recovery of \$5,422,565 being as follows: (1) the sale of 56 vessels for \$2,378,018; (2) the proceeds of insurance on four vessels lost, amounting to \$2,111,475; and (3) the sale of six vessels for \$933,072 to the Canadian National (West Indies) Steamships Limited.

The charter of the Canadian Government Merchant Marine Limited and its subsidiary companies, although inactive since 1936, was not surrendered and in 1940, the Company was reconstituted and is operating, on behalf of the Canadian Government, certain ships seized in prize and either requisitioned for use by the Canadian Government or condemned by the Court. Settlement with the owners of requisitioned ships for charter hire has not been completed.

Canadian National (West Indies) Steamships Limited.—In conformity with the Canada-West Indies Trade Agreement of 1926 (16-17 Geo. V, c. 16) the Federal Government has provided direct steamship services to the West Indies through the medium of Canadian National (West Indies) Steamships Limited.

At the end of 1949, the Canadian National Steamships owned and operated 10 vessels in service between Canada and the British West Indies.

20.—Financial Statistics of Canadian National (West Indies) Steamships Limited, 1942-51

NOTE.—Figures for the years 1929-38 are given in the 1942 Year Book, p. 620, and for 1939-41 in the 1950 edition, p. 777.

Year	Operating Revenue	Operating Expenditure	Operating Net	Depre- ciation	Interest	Book Loss or Surplus
	\$	\$	\$	\$	\$	\$
1942.....	5,600,496	4,220,219	+1,380,277	160,634	816,701	+273,880
1943.....	4,492,189	2,949,216	+1,542,973	239,363	813,073	+438,837
1944.....	5,378,059	3,160,568	+2,217,491	243,158	651,246	+1,271,387
1945.....	4,412,252	2,569,626	+1,842,626	279,466	612,999	+1,116,086
1946.....	6,669,129	4,671,148	+1,997,981	288,092	596,499	+1,302,052
1947.....	7,857,471	6,534,600	+1,322,871	493,594	573,298	+522,677
1948.....	7,964,720	6,828,392	+1,136,328	492,222	563,794	+166,044
1949.....	6,595,007	5,985,873	+609,134	492,222	577,410	-460,498
1950.....	5,124,200	5,220,806	-96,606	371,699	560,462	-1,028,767
1951.....	6,808,478	6,337,987	+470,491	371,699	565,734	-466,992

Subsection 6.—The St. Lawrence Seaway Project

The proposal to enlarge the navigational facilities and develop the power resources of the International Section of the St. Lawrence River has been agitating public opinion in Canada and the United States for over one-hundred years. The proposal was formalized in the St. Lawrence Deep Waterway Treaty of 1932 and the Great Lakes-St. Lawrence Agreement of 1941. The former was killed in the Senate

of the United States. As late as June 18, 1952, the United States Senate returned a resolution to approve the 1941 Agreement to its foreign relations committee for further study.

Further delay by Congress of the United States to implement the 1941 Agreement has resulted in action being taken by Canada with a view to the construction of an all-Canadian navigational project. This would be undertaken in conjunction with a proposed joint Canadian-United States project to develop the power resources of the International Section of the St. Lawrence River.

Towards the end of the 1951 session of the Parliament of Canada, an Act was passed enabling the setting up of a St. Lawrence Seaway Authority to undertake the construction work of an all-Canadian navigational project and its operation on completion. Provision was made for this Authority to be the agency responsible for the Canadian share of construction and operation of the Seaway project should the United States join with Canada in this undertaking.

On June 30, 1952, separate submissions by Canada and the United States were filed with the International Joint Commission seeking approval of the necessary works to develop the power resources of the International Section of the St. Lawrence River. In its submission, Canada undertook to carry out the construction of navigational works on the Canadian side of the River. At the same time, an exchange of notes between Canada and the United States on this subject took place at Washington, D.C.

Preliminary work in connection with the all-Canadian navigational project commenced in January 1952, with test drilling where the main canal would be located on the Canadian shore of the St. Lawrence River. Plans for the work involved in the construction of the all-Canadian project are well advanced by Department of Transport engineers, who were also responsible for the preparation of plans under the 1941 Agreement.

Section 2.—Financial Statistics of Waterways

The principal statistics available of the cost of water-borne traffic consist of the record of public expenditure on waterways. Such expenditure may be classified as capital expenditure, or investment and expenditure for maintenance and operation. Revenue from operation is also recorded. In so far as capital expenditure for the permanent improvement of waterways is concerned, that of the Federal Government covers the major part. There has been some expenditure by municipalities on local harbour facilities, and private capital expenditure is also confined almost entirely to terminal or dockage facilities. The investment in shipping, however, with the exception of the Canadian Government Merchant Marine Limited and the Canadian National (West Indies) Steamships Limited, has come almost entirely from private sources. No figures are available regarding private investment in shipping except those appearing in the reports of the operating companies that cover only a portion of the field. There are no statistics showing the revenue of ship operators from passenger and freight traffic.

Capital Expenditure.—The only figures available of federal capital expenditure on Canadian waterways are those compiled from the Public Accounts and the annual reports of the Departments of Transport, Public Works and Finance. However, such expenditure cannot be regarded as any indication of the present worth of the undertakings represented. The cost of building canals and other waterways and

permanent works to facilitate water transportation in Canada are represented in such reports at their original book values, no deductions having been made from the cumulative totals for depreciation from year to year or for abandonment of earlier works which have been superseded, as for instance, in the first Welland Canals. To this extent such figures are an overstatement of the present value of the works in use. There is a further limitation that should be noted in regard to such figures: they do not include the costs of maintenance and improvements or the operation of these works, such charges having been made to the Consolidated Deficit Account as annual expenditure and not to capital account. Table 21, which shows capital expenditure on canals, marine service and miscellaneous water-transport facilities to have reached the grand total of \$411,291,685, must be interpreted with the above qualifications in mind. In Table 22, the capital values of the fixed assets administered by the National Harbours Board are shown as at Dec. 31, 1950, and 1951, and are in addition to the capital expenditure of Table 21. Figures in Table 22 reflect the capital situation in regard to the national harbours of Canada far better than do those of Table 21 in the case of waterways and facilities, inasmuch as they include all buildings, machinery and durable plant improvements; they also have been subject to deductions for depreciation and the scrapping or abandonment of plant and hence more nearly approach the present value of the properties under the administration of the National Harbours Board.

Table 23 on p. 798 shows the amounts advanced by the Federal Government to the National Harbours Board for capital expenditure from 1949 to 1951.

21.—Capital Expenditure of the Federal Government on Canals, Marine Services and Miscellaneous Water-Transport Facilities, as at Mar. 31, 1950 and 1951

NOTE.—Compiled from annual reports of the Department of Transport.

Canals	Expenditure			Canals	Expenditure		
	Years Ended Mar. 31—		Total to Mar. 31, 1951		Years Ended Mar. 31—		Total to Mar. 31, 1951
	1950	1951			1950	1951	
Canals	\$	\$	\$	Canals—concluded	\$	\$	\$
Quebec Canals—				Ontario-St. Lawrence			
Beauharnois (old)...	—	Cr. 7,500	1,627,469	Canals—concluded			
Carillon and Grenville.....	—	—	4,191,727	River Reaches.....	—	—	483,830
Chamblay				St. Peters, N.S.....	—	—	648,547
(Richelieu R.)....	—	—	780,620	Culbute Lock and			
Lachine.....	—	—	14,043,437	Dam (Ottawa R.)..	—	—	382,391
Lake St. Francis....	—	—	75,907	Rideau.....	—	—	4,213,961
Lake St. Louis.....	—	—	298,176	Tay.....	—	—	489,599
Soulanges.....	Cr. 1,550	—	7,897,120	St. Lawrence Ship			
Ste. Annes.....	—	—	1,320,216	(Surveys).....	—	—	133,897
St. Ours.....	—	—	735,964	Sault Ste. Marie....	—	—	4,935,809
Ontario-St. Lawrence				Trent.....	Cr. 178	Cr. 60	19,950,748
Canals—				Murray.....	—	—	1,248,947
Cornwall.....	—	Cr. 5,680	7,233,823	Welland Ship.....	Cr. 7,440	Cr. 46,548	131,813,256
Williamsburg Canals	—	—	1,334,552	Prior Welland			
Farran Point.....	—	—	877,090	Canals.....	Cr. 4,706	Cr. 13,673	27,285,287
Rapide Plat.....	—	—	2,159,881	Canals generally....	—	—	34,967
Galop.....	—	—	6,143,468	Adjustment suspense	—	—	165,361
Galop Channel.....	—	—	1,039,896				
North Channel.....	—	—	1,995,143	Totals, Canals....	Cr. 13,574¹	Cr. 73,461¹	243,541,089

¹ Sales of property, stone, etc.

21.—Capital Expenditure of the Federal Government on Canals, Marine Services and Miscellaneous Water-Transport Facilities, as at Mar. 31, 1950 and 1951—concluded

Marine Service	Expenditure			Miscellaneous Facilities	Expenditure		
	Years Ended Mar. 31—		Total to Mar. 31, 1951		Years Ended Mar. 31—		Total to Mar. 31, 1951
	1950	1951			1950	1951	
	\$	\$	\$		\$	\$	\$
Marine Service				Miscellaneous Facilities¹—concluded			
River St. Lawrence Ship Channel.....				Georgian Bay to Montreal waterway survey.....	—	—	918,797
Tug "Ocean Eagle".....	3,532,365	3,612,568	100,912,523	Halifax elevator site	—	—	86,512
Construction of Ice-breaker.....	—	—	91,072	Kingston graving dock.....	—	—	556,589
Hopper Barge "Chesterfield".....	—	—	760,699	Lake St. Peter.....	—	—	1,164,235
Lighthouse Supply and Buoy Vessels—	—	—	233,941	Lévis graving dock.....	418,628	356,601	1,746,822
East Coast.....	1,133,352	88,183	1,709,767	Miscellaneous wharves.....	—	—	1,005,929
Service Vessels for Eastern Arctic Patrol.....	1,553,319	691,392	3,002,430	Port Arthur, Fort William and River Kaministikwia improvements.....	1,555,523	1,048,091	18,852,634
Lightship—Port of Saint John, N.B....	602,575	57,492	663,406	Port Colborne Harbour.....	50,243	68,053	1,022,755
Lighthouse supply and buoy vessel, West Coast.....	665,880	248,921	915,644	Rainy River Lock and Dam.....	—	—	134
Workboat—Parry Sound, Ont.....	25,375	5,569	31,385	Sorel Harbour improvements.....	310,460	887,451	3,004,452
Construction of ice-breaking vessel to meet St. Lawrence and northern transportation requirements.....	30,798	15,981	46,779	St. Andrews Rapids and Red River improvements.....	112,025	145,428	1,827,230
Acquisition of two vessels for Pacific Weather Station "P".....	115,000	1,531,614	1,646,614	Tiffin Harbour improvements.....	—	—	481,622
Construction of general service workboat St. John's, Nfld.....	—	215	215	Toronto Harbour improvements.....	808,461	203,835	10,344,283
Construction of auto ferry for service between Yarmouth, N.S., and New England States, U.S.A.....	—	16,356	16,356	Upper St. Lawrence River Channel improvements.....	—	—	468,098
				Victoria, B.C., Harbour improvements	56,864	150,752	5,338,641
				Victoria, Ont., Harbour improvements	498	603	762,903
				Totals, Miscellaneous	3,436,758	3,061,312	57,719,765
Totals, Marine Service.....	7,658,664	6,268,291	110,030,831				
Miscellaneous Facilities¹							
Bare Point breakwater.....	—	—	217,996	Summary			
Burlington Bay Canal.....	—	—	308,328	Canals.....	Cr.13,874	Cr.73,461	243,541,089
Burlington Channel improvements.....	4,445	76,864	1,473,799	Marine Service.....	7,658,664	6,268,291	110,030,831
Cape Tormentine Harbour.....	—	—	95,000	Miscellaneous facilities.....	3,436,758	3,061,312	57,719,765
Esquimalt graving dock.....	119,611	123,634	8,043,006	Grand Totals.....	11,081,548	9,256,142	411,291,685

¹ These are works not covered elsewhere in these tables and are shown in the *Public Accounts* as Schedule K to the Balance Sheet.

22.—Capital Values of Fixed Assets administered by the National Harbours Board, as at Dec. 31, 1950 and 1951

NOTE.—Compiled from the annual reports of the National Harbours Board.

Item	1950	1951	Item	1950	1951
	\$	\$		\$	\$
Harbour dredging.....	12,301,492	12,305,212	Central heating plants....	150,657	150,657
Real estate.....	12,776,002	12,828,869	Harbour shops.....	328,896	326,188
Vehicular bridges.....	300,389	202,206	Electric power systems....	1,215,493	1,219,773
Roads, fences and boundaries.....	1,839,885	1,842,641	Water supply systems....	763,388	768,923
Sewers and drains.....	689,701	689,701	Floating equipment.....	2,181,269	2,186,561
Miscellaneous structures....	756,924	756,924	Shore equipment.....	923,508	927,145
Wharves and piers.....	91,179,600	95,213,985	Miscellaneous small plant.	571,524	587,107
Permanent sheds.....	21,430,337	22,530,403	Engineering—general surveys.....	606,403	606,403
Shed hoists and electrical cranes.....	248,973	248,973	Works under construction.	5,533,904	1,544,992
Railway systems.....	7,177,862	7,788,175	Sundry expenditure—undistributed.....	5,390,904	5,386,080
Grain elevator systems....	42,292,115	42,625,179	Bridge construction, right-of-way, etc.....	18,580,807	18,563,715
Cold-storage systems.....	5,768,459	5,779,504			
Office furniture and appliances.....	165,645	181,353			
Harbour buildings.....	991,377	1,184,138	Totals.....	234,165,514	236,444,807

23.—Amounts advanced by the Federal Government to the National Harbours Board for Capital Expenditure, 1949-51

NOTE.—Compiled from the annual reports of the National Harbours Board.

Harbours and Properties	1949	1950	1951	Harbours and Properties	1949	1950	1951
	\$	\$	\$		\$	\$	\$
Halifax.....	1,899,432	496,606	1,042,951	Montreal.....	561,694	1,514,824	898,823
Saint John.....	1,473,057	260,452	—	Port Colborne elevator.....	7,040	120,283	49,648
Chicoutimi.....	—	558	—	Churchill.....	192,461	249,954	174,882
Quebec.....	575,522	260,250	27,254	Vancouver.....	15,141	90,243	90,698
Three Rivers.....	2,163	—	2,542	Totals.....	4,726,510	2,993,170	2,286,798

Waterway Expenditure and Revenue on Consolidated Fund Account.—

Expenditure under this heading (Tables 24 to 26) is mainly for the operation and maintenance of various facilities for water transport, but unfortunately the line between operation and maintenance expenditure is not as finely drawn as is desirable.

In addition to the recurrent expenditure shown here, to facilitate water transportation, the Federal Government expends annually a considerable amount to cover deficits of the Canadian National (West Indies) Steamships Limited and of the National Harbours Board, for mail subsidies and steamship subventions as shown in Table 29. Operating expenditure and revenue of facilities administered by the National Harbours Board are shown separately in Table 28. The National Harbours Board operates as a statutory corporation. The improvement in the financial results since control was unified under the Board is indicated by the increase of consolidated operating income from \$2,452,000 in 1935 to \$7,377,493 in 1951. Revenue in connection with waterways of the Department of Transport and the Department of Public Works is shown in Table 27.

24.—Expenditure on Canals charged to Consolidated Deficit Account, Years Ended Mar. 31, 1950 and 1951

NOTE.—Compiled from the annual reports of the Department of Transport.

Canal	Expenditure on Improvements			Canal	Expenditure on Operation and Maintenance	
	Year Ended Mar. 31, 1950	Year Ended Mar. 31, 1951	Total to Mar. 31, 1951		Year Ended Mar. 31, 1950	Year Ended Mar. 31, 1951
	\$	\$	\$		\$	\$
Main Canals—				Administration, Ottawa.....	85,174	87,933
Quebec Canals—				Quebec Canals—		
Beauharnois (old)...	—	—	355,640	Head Office.....	52,211	55,772
Hungry Bay Dyke.....	8,436	—	55,659	Beauharnois (old).....	—	9,818
Lachine.....	901,231	3,466,450	6,949,881	Carillon and Grenville Canals	123,698	107,845
Lake St. Francis.....	—	—	55,324	Chambly (Richelieu River)	140,692	153,721
Quebec Dredging				Hungry Bay and Ste. Barbe		
Fleet.....	5,473	—	185,149	Dykes.....	10,653	4,622
Soulanges.....	52,001	11,607	751,007	Lachine.....	570,674	747,141
Ontario-St. Lawrence				Quebec Dredging Fleet.....	36,907	45,023
Canals.....	—	—	336,906	Soulanges.....	265,070	299,585
Cornwall.....	299,097	113,851	1,256,955	Ste. Annes.....	19,430	21,600
Williamsburg.....	45,139	32,493	543,610	St. Ours (Richelieu River)...	16,646	18,999
Welland Canals—						
Welland Ship.....	206,099	52,716	2,077,014	Ontario-St. Lawrence Canals—		
Prior Welland				Head Office.....	73,474	81,889
Canals.....	—	—	2,650,121	Cornwall.....	300,948	413,188
Sault Ste. Marie.....	6,522	11,487	573,333	Williamsburg Canals.....	154,887	182,055
				St. Peters, N.S.....	29,993	36,613
Secondary Canals—				Rideau and Tay Canals.....	401,924	369,073
Carillon and Grenville.....	418,652	6,000	1,114,215	Sault Ste. Marie.....	110,631	134,880
Chambly (Richelieu River).....	29,511	6,658	1,294,624	Trent.....	415,148	461,349
Rideau and Tay.....	87,433	51,923	1,326,860	Murray.....	21,090	21,696
Ste. Annes.....	—	—	232,812	Welland Canals.....	1,164,307	1,219,332
St. Ours (Richelieu River).....	10,769	3,494	215,816	Flow Measurements—		
St. Peters.....	24,221	—	961,842	Beauharnois.....	364	520
Trent.....	98,524	48,689	4,766,135	St. Lawrence Ship Canal Surveys, etc.....	11,320	5,760
Murray.....	—	5,928	220,987			
Miscellaneous—				Totals.....	4,005,241	4,478,414
Bay Verte, Chignecto.....	—	—	44,388			
Culbute Lock and Dam (Ottawa R.)..	—	—	60,923			
Surveys and inspections.....	—	—	572,990			
Canals generally.....	—	—	190,509			
Totals.....	2,193,108	3,811,256	26,792,700			

25.—Marine Service Expenditure charged to Consolidated Deficit Account, Years Ended Mar. 31, 1950 and 1951

NOTE.—Compiled from the annual reports of the Department of Transport.

Marine Services	1950	1951	Marine Services	1950	1951
	\$	\$		\$	\$
Marine Service — administration.....	18,614	19,959	Navigation and Shipping—miscellaneous.....	118,188	135,123
Floating Equipment—administration.....	35,481	54,603	Life Saving Service.....	136,291	122,019
Nautical Services — administration, operation and maintenance.....	250,951	303,899	Marine Signal Service.....	135,486	144,004
Maintenance and operation of steamers (including ice-breakers).....	2,963,702	3,643,555	Administration of pilotage.....	277,798	400,773
			Subsidies for wrecking plants.....	65,000	65,000
			Aids to navigation (construction, maintenance and supervision).....	4,496,130	4,540,012

25. — Marine Service Expenditure charged to Consolidated Deficit Account, Years Ended Mar. 31, 1950 and 1951—concluded

Marine Services	1950	1951	Marine Services	1950	1951
	\$	\$		\$	\$
Maintenance and repairs to wharves.....	3,555	3,054	Government Employees' Compensation Act.....	—	—
Breaking ice—Thunder Bay...	30,000	30,000	Government Employees' Compensation Act Newfoundland Appendix (23)....	—	—
North Atlantic ice patrol.....	9,819	20,000	Marine Service—War Appropriations.....	49	499
Steamship Inspection.....	344,362	380,927	Write-off from active assets of the balance of advances for loans made to the Halifax and Sydney Pilotage Districts.....	—	8,358
Agencies, salaries and office expenses.....	395,172	436,750	Totals.....	9,877,542	10,920,871
St. Lawrence Ship Channel—maintenance and operation...	593,782	609,336			
Grants to sailors' institutes...	600	600			
Pensions to pilots.....	2,409	2,400			
Compassionate allowances.....	153	—			

26.—Expenditure on Waterways charged to Consolidated Fund Account by Department of Public Works, Years Ended Mar. 31, 1950 and 1951

NOTE.—Compiled from Annual Reports of the Department concerned by the Comptroller of the Treasury, Department of Finance.

Year and Item	Dredging	Construction	Improvements and Repairs	Staff and Sundries	Total
	\$	\$	\$	\$	\$
1950					
Harbours and Rivers—					
Newfoundland.....	100,443	37,833	319,306	46,994	504,576
Prince Edward Island.....	307,358	494,547	376,169	42,625	1,220,699
Nova Scotia.....	789,425	1,713,313	911,008	151,350	3,565,096
New Brunswick.....	289,534	1,015,012	753,518	330,619	2,388,683
Quebec.....	843,698	5,656,381	1,996,821	727,903	9,224,803
Ontario.....	1,522,285	1,820,245	2,628,774	386,727	6,358,031
Manitoba.....	114,210	178,905	16,959	106,563	416,637
Saskatchewan.....	903	6,247	28,385	62,771	98,306
Alberta.....	19,814	10,832	19,864	43,453	93,963
British Columbia.....	1,294,565	901,264	1,151,330	552,969	3,900,128
Yukon Territory.....	3,426	25,918	—	—	29,344
Northwest Territories.....	62,969	229,150	24,173	—	316,292
General.....	—	—	—	64,338	64,338
Totals, Harbours¹ and Rivers.....	5,348,630	12,089,647	8,226,307	2,516,312	28,180,896
Dredging plant.....	—	604,893	54,639	—	659,532
Roads and bridges.....	—	—	48,720	179,612	228,332
Totals, 1950.....	5,348,630	12,694,540	8,329,666	2,695,924	29,068,760
1951					
Harbours and Rivers—					
Newfoundland.....	244,921	251,874	309,477	109,806	916,078
Prince Edward Island.....	342,861	614,929	225,065	50,128	1,232,983
Nova Scotia.....	758,546	1,089,791	1,369,740	127,686	3,345,763
New Brunswick.....	723,677	1,175,499	737,584	339,549	2,976,309
Quebec.....	851,289	5,136,836	2,397,321	776,480	9,161,926
Ontario.....	1,658,245	822,477	2,239,096	364,389	5,084,207
Manitoba.....	118,319	119,466	106,055	83,144	436,984
Saskatchewan.....	1,284	20,979	29,085	23,347	74,695
Alberta.....	24,494	23,725	59,906	56,712	164,837
British Columbia.....	1,417,025	1,252,083	1,429,124	506,977	4,605,809
Yukon Territory.....	16,883	—	—	10,058	26,941
Northwest Territories.....	44,813	19,332	20,354	—	84,499
General.....	—	—	—	140,458	140,458
Totals, Harbours¹ and Rivers.....	6,202,957	10,526,991	8,922,807	2,598,734	28,251,489
Dredging plant.....	—	1,073,976	54,337	—	1,128,313
Roads and bridges.....	—	—	92,425	79,471	171,896
Totals, 1951.....	6,202,957	11,600,967	9,069,569	2,678,205	29,551,698

¹ Exclusive of harbours under the National Harbours Board as shown in Table 28.

27.—Revenue of the Federal Government in connection with Waterways, Years Ended Mar. 31, 1950 and 1951

NOTE.—Compiled from Annual Reports of the Department concerned by the Comptroller of the Treasury, Department of Finance.

Item	1950	1951	Item	1950	1951
Department of Transport	\$	\$	MARINE SERVICE—concluded	\$	\$
CANALS SERVICE			Miscellaneous.....	5,132	4,073
Lachine.....	302,441	316,027	Refund of previous year's expenditure.....	5,569	77,715
Soulanges.....	4,056	3,060	TOTALS, MARINE SERVICE...	520,319	583,857
Chambly.....	1,955	2,733			
St. Annes Lock.....	412	572	BOARD OF TRANSPORT COMMISSIONERS		
Carillon and Grenville.....	729	925	Licences to ships.....	699	2,793
Beauharnois.....	129,411	49,872	Sale of publications.....	72	175
Quebec dredging fleet.....	—	3,996	TOTALS, BOARD OF TRANSPORT COMMISSIONERS.....	771	2,968
Cornwall.....	31,972	53,419	Totals, Dept. of Transport...	1,819,175	1,922,111
Williamsburg.....	9,162	34,218			
St. Peters.....	273	237	Department of Public Works		
Welland Canals.....	701,012	749,805	EARNINGS OF DRY DOCKS		
Sault Ste. Marie.....	1,903	6,242	Champlain Dock, Lauzon, Que.....	35,945	69,518
Rideau.....	21,690	19,692	Lorne Dock, Lauzon, Que.....	38,053	20,040
Trent.....	87,944	87,793	Esquimalt new dock.....	91,973	77,730
Murray.....	450	450	Esquimalt old dock.....	—	1,429
Fines and forfeitures.....	—	—	Selkirk repair slip.....	3,603	2,300
Sale of publications.....	—	38	TOTALS, EARNINGS.....	169,574	171,017
Premium, discount and exchange.....	26	—			
Sundry services.....	—	—	WORKS AND PLANTS LEASED		
Miscellaneous.....	—	32	Kingston dry dock.....	9,025	9,025
Refunds of previous year's expenditure.....	4,649	6,175	Ferry privileges.....	503	445
TOTALS, CANALS SERVICE...	1,298,085	1,335,286	Dredges and plants.....	180,392	9,992
			TOTALS, LEASED.....	189,920	19,462
MARINE SERVICE			Rents from water lots, etc....	17,566	19,474
Fines and forfeitures.....	46,247	17,347	Refunds against expenditure reported in previous years...	101,090	87,035
Steamship inspection.....	159,142	162,788	Sundry receipts.....	6,340	9,858
Wharf revenue.....	203,874	227,629	Totals, Dept. of Public Works.....	484,490	306,846
Harbour dues.....	50,488	47,115			
Measuring surveyors' fees.....	903	770			
Examinations—masters' and mates' fees.....	6,710	7,136			
Pilots' licence fees (pilotage).....	301	126			
Pilotage dues.....	—	2,200			
Shipping fees.....	—	3,125			
Marine steamers' earnings.....	150	3,827			
Signal station dues.....	1,225	1,264			
Rentals — water lots and lighthouse sites.....	13,742	13,669			
Rentals — miscellaneous.....	16,539	10,989			
Sale of land, buildings, etc....	7,054	1,302			
Merchant seamen's identity certificates.....	3,243	2,782			

28.—Operating Revenue and Expenditure of Harbours, Elevators and Bridges under the National Harbours Board, 1947-51

Harbour and Year	Operating Revenue	Operating Expenditure	Operating Income	Harbour and Year	Operating Revenue	Operating Expenditure	Operating Income
	\$	\$	\$		\$	\$	\$
Halifax —				Saint John —			
1947.....	1,161,261	800,168	361,093	1947.....	945,198	488,756	456,442
1948.....	1,270,564	862,529	408,035	1948.....	805,364	472,365	332,999
1949.....	1,300,605	893,699	406,906	1949.....	715,423	501,163	214,260
1950.....	1,158,425	895,757	262,668	1950.....	627,860	511,328	116,532
1951.....	1,338,348	1,044,779	293,569	1951.....	728,648	576,255	152,393

**28.—Operating Revenue and Expenditure of Harbours, Elevators and Bridges
under the National Harbours Board, 1947-51—concluded**

Harbour and Year	Operating Revenue	Operating Expendi- ture	Operating Income	Harbour and Year	Operating Revenue	Operating Expendi- ture	Operating Income
\$	\$	\$			\$	\$	\$
Three Rivers—				Port Colborne Elevator—			
1947.....	235,765	50,242	185,523	1947.....	208,871	142,265	66,606
1948.....	219,712	43,264	176,448	1948.....	252,185	189,414	62,771
1949.....	213,745	45,194	168,551	1949.....	485,718	293,881	191,837
1950.....	265,209	64,159	201,050	1950.....	588,357	325,954	262,403
1951.....	296,923	37,168	259,755	1951.....	630,423	394,843	235,580
Montreal—				Prescott Elevator—			
1947.....	4,990,919	3,083,883	1,907,036	1947.....	136,750	119,687	17,063
1948.....	5,608,899	3,186,639	2,422,260	1948.....	120,037	160,253	-40,216
1949.....	6,272,697	3,663,798	2,608,899	1949.....	264,004	150,155	113,849
1950.....	6,324,037	3,500,606	2,823,431	1950.....	283,680	143,904	139,776
1951.....	7,478,227	4,053,329	3,424,898	1951.....	276,544	159,139	117,405
Chicoutimi—				Churchill—			
1947.....	40,573	21,407	19,166	1947.....	218,061	284,725	-66,664
1948.....	50,310	20,512	29,798	1948.....	278,712	321,337	-42,625
1949.....	58,386	19,440	38,946	1949.....	256,487	339,944	-83,457
1950.....	69,816	22,172	47,644	1950.....	368,472	556,659	-188,187
1951.....	82,416	29,185	53,231	1951.....	409,141	463,887	-54,746
Quebec—				Vancouver—			
1947.....	627,732	691,609	-63,877	1947.....	2,206,235	1,142,027	1,064,208
1948.....	684,128	833,283	-149,155	1948.....	2,311,011	1,293,633	1,017,378
1949.....	871,022	813,289	57,733	1949.....	2,260,677	1,209,250	1,051,427
1950.....	978,667	818,594	160,073	1950.....	2,985,966	1,594,580	1,391,386
1951.....	1,415,577	1,217,085	198,492	1951.....	3,305,429	1,853,730	1,451,699
Jacques Cartier Bridge (Montreal)				Second Narrows Bridge (Vancouver)			
1947.....	835,097	118,779	716,318	1947.....	224,447	67,226	157,221
1948.....	974,764	129,372	845,392	1948.....	255,096	95,974	159,122
1949.....	1,104,921	141,727	963,194	1949.....	269,012	89,082	179,930
1950.....	1,231,537	148,385	1,083,152	1950.....	283,319	92,908	190,411
1951.....	1,413,381	168,165	1,245,216	1951.....	1	1	1

¹ Reverted to former owners in 1951.

Canadian Maritime Commission.—By authority of an Act (11 Geo. VI, c. 52) passed in the 1947 session of Parliament, the Canadian Maritime Commission was constituted for the purpose of examining into, keeping records of, and advising the Minister of Transport on matters pertaining to Canadian shipping and ship-building services.

In addition to these duties, the Act also empowers the Commission to:—

- (1) exercise and perform on behalf of the Minister such powers, duties and functions of the Minister under the Canada Shipping Act, 1934, as the Minister may require;
- (2) administer, in accordance with regulations of the Governor in Council, any steamship subventions voted by Parliament; and
- (3) exercise or perform any other powers, duties or functions conferred on or required to be performed by the Commission by or pursuant to any other Act or order of the Governor in Council.

Since the Canadian Maritime Commission was created, it has assumed all responsibilities for the administration of steamship subventions which had formerly been under the jurisdiction of the Department of Trade and Commerce.

The Park Steamship Company.—Since World War II the Park Steamship Company has acted as an agent for Crown Assets Disposal Corporation in the sale and delivery to purchasers of Government war-built ships. This work is virtually completed but the Park Company remains available to carry out any appropriate duties. The Company has no staff of its own, any necessary work being done by the staff of the Canadian Maritime Commission.

Shipping Subsidies.—The figures given in Table 29 represent the amounts paid in connection with contracts made under statutory authority by the Canadian Maritime Commission for ocean, coastal and inland water-shipping services.

29.—Steamship Subventions, Years Ended Mar. 31, 1950-52

Service	1950	1951	1952
	\$	\$	\$
Pacific Coast Services—			
Vancouver and northern ports of British Columbia and Queen Charlotte Islands	345,000	345,000	345,000
Victoria and west coast of Vancouver Island	60,000	100,000	146,555
Local Services—			
Baddeck and Iona, N.S.	12,000	12,000	12,000
Campobello, N.B., and Lubec, Maine	3,667	6,000	6,000
Dalhousie, N.B., and Miguasha, Que.	22,000	22,000	19,000
Deer Island, Campobello Island and St. Stephens, N.B.	2,000	2,000	2,000
Grand Manan and the mainland, N.B.	85,000	95,000	95,000
Halifax, Canso and Guysborough, N.S.	20,000	20,000	20,000
Halifax, Sherbrooke, Spry Bay and Torbay, N.S.	14,000	14,000	2,333
Halifax, Ile Madame and west coast of Cape Breton Island, N.S.	10,000	10,000	—
Halifax, Torbay, Ile Madame and ports on west coast Cape Breton Island, N.S.	—	—	15,000
Ile-aux-Coudres and Les Eboulements, Que.	16,000	12,000	15,000
Ile-aux-Grues and Montmagny, Que.	2,500	2,500	2,500
Mulgrave and Arichat, N.S.	31,000	31,000	31,000
Mulgrave and Canso, N.S.	85,000	82,000	82,000
Mulgrave, Guysborough and Queensport, N.S.	16,500	16,500	16,500
Murray Bay and north shore St. Lawrence, Que. (winter service).	50,000	50,000	50,000
Owen Sound and ports on Manitoulin Island and Georgian Bay, Ont.	64,744	73,164	83,231
Pelee Island and the mainland, Ont.	21,000	19,000	43,537
Pictou, Mulgrave and Cheticamp, N.S.	13,500	13,500	13,500
Pictou, N.S., Charlottetown, P.E.I., and Magdalen Islands, Que.	144,000	120,000	120,000
Prince Edward Island and Newfoundland	54,000	—	—
Prescott, Ont., and Ogdensburg, N.Y.	—	—	8,782
Prince Edward Island and Nova Scotia	161,000	130,000	130,000
Quebec, Natashquan and Harrington, Que., and other ports on the north shore, Gulf of St. Lawrence	448,000	520,000	520,000
Quebec or Montreal, Gaspé, Que., and Magdalen Islands, calling at way ports	156,500	156,500	156,500
Rimouski, Matane and ports on the north shore of the St. Lawrence, Que.	125,500	125,500	125,500
Riviere-du-Loup and St. Simeon, Que.	21,000	21,000	21,000
Saint John, N.B., Westport and Yarmouth, N.S., calling at way ports	29,625	29,625	29,625
Sydney and Bay St. Lawrence, Cape Breton Island, calling at way ports	40,000	40,000	40,000
Sydney, Bras d'Or Lake ports, ports on the west coast of Cape Breton Island and Prince Edward Island	30,000	30,000	30,000
Sydney and Whyecocomagh, Cape Breton Island, calling at way ports	28,000	28,000	28,000
Yarmouth, N.S., and Boston, Mass.	27,221	25,654	25,541
Newfoundland Coastal Steamship Services	—	1,250,000	1,590,000
Ocean Services—			
Canada, New Zealand and Australia	—	—	166,667
Assistance for Canadian Flag Ocean Shipping Industry	—	2,358,973	337,500
Totals	2,138,757	5,760,916	4,329,271

PART V.—CIVIL AIR TRANSPORTATION*

Section 1.—Administration and Development

Historical Developments.—Canada's aviation history dates back to 1909 when the *Silver Dart* piloted by Jack McCurdy (Hon. J. A. D. McCurdy, former Lieutenant-Governor of Nova Scotia) flew at Baddeck, N.S. This was the first aeroplane flight by a British subject in the British Empire.

There was little aviation development in this country until World War I. Following the War, many of Canada's wartime aviators assisted in developing air transportation services into inaccessible areas, air forestry patrols and inter-city air services. During this period, the flying clubs movement received Government assistance in the training of pilots and engineers required by Canada's civil aviation industry.

World War II was a period of intensive construction of airports and aerodromes to meet the requirements for training of airmen under the British Commonwealth Air Training Plan. At the end of the War, many Service-trained Canadian airmen turned to commercial flying and were absorbed in existing operating companies or helped to develop other flying services. Transatlantic air services, which were inaugurated by the Department of Transport during the War, were turned over to Trans-Canada Air Lines which came into being by Act of Parliament in 1937 to provide for the development of a government-controlled transcontinental air service for operation as regular scheduled operations. Canadian Pacific Air Lines was created by the amalgamation of small commercial operators for the servicing of Canada's northland. In 1949 the Canadian Pacific Air Lines was designated to provide transpacific services on behalf of Canada and began its scheduled operations from Vancouver to Australia and New Zealand in July of that year and to Japan, China and Hong Kong in September.

The Control of Civil Aviation.—The control of civil aviation in Canada is under the jurisdiction of the Federal Government and is administered under the authority of the Aeronautics Act, 1919, and amendments thereto. The Aeronautics Act is in three parts. Broadly speaking, Part I deals with the technical side of civil aviation, comprising matters of registration of aircraft, licensing of airmen, the establishment and maintenance of airports and facilities for air navigation, air traffic control, accident investigation and the safe operation of aircraft. This Part of the Act is administered by the Controller of Civil Aviation under the supervision of the Director of Air Services, Department of Transport. Part II of the Act deals with the social and economic aspects of commercial air services and assigns to the Air Transport Board certain statutory functions with respect to the regulations of commercial air services. Part III of the Act deals with matters of government internal administration in connection with the Act.

Recent Developments in Ground and other Facilities.—Airports and aerodromes coming under the jurisdiction of the Department of Transport have been improved and enlarged to meet the requirements of larger and heavier aircraft. Instrument Landing Systems (ILS) designed to facilitate safe landings under low visibility conditions have been installed in 17 airports. Twelve of Canada's civil airports are regular ports of call for international commercial air services.

* Sections 1 and 2 of this Part were revised in the Department of Transport and Section 3, except where otherwise indicated, in the Transportation Section, Public Finance and Transportation Division, Dominion Bureau of Statistics. For military air transportation, see Chapter XXVII on Defence of Canada.

Expansion of the weather forecasting services of the Meteorological Division of the Department of Transport has been made possible by the establishment of additional weather-observing stations in Arctic and sub-Arctic regions. Canada has undertaken to maintain for meteorological purposes, a weather-observing station, manned by three weather ships in the Pacific Ocean, 300 miles off Vancouver Island. This weather station was established in December 1950 as a result of Canada's undertaking with International Civil Aviation Organization.

Royal Canadian Flying Clubs.—At the end of 1951, there were 36 member clubs of the Royal Canadian Flying Clubs Association with a total membership of 4,000. In 1950 there were 34 member clubs. During the year 1951, with 1950 figures in brackets, instructional hours flown totalled 51,190 (25,659) and the number of aircraft utilized for instructional purposes was 140 (127). The number of students instructed and graduated as private pilots was 709 (601). In 1951 there were 116 who graduated as commercial pilots.

Air Industries and Transport Association.—Commercial flying schools that are members of the Air Industries and Transport Association numbered 44 at the end of 1951 as compared with 57 in 1950. During the year 1951, with 1950 figures in brackets, the number of students instructed and graduated as private pilots was 516 (597) and the number graduated as commercial pilots 134 (not separately listed in 1950). The number of instructional hours flown was 33,063 (33,854).

International Air Agreements.—In recent years, Canada has been a signatory to agreements concerning civil aviation with Australia and New Zealand; Belgium, Germany, Ireland, Iceland, Netherlands, Portugal, Sweden and the United Kingdom; and with the United States.

Section 2.—Air Services

Air Transport Services.—These services are grouped into two broad classes—Scheduled Services and Non-Scheduled Services.

Scheduled Services provide regular point-to-point service on scheduled advertised routes and Non-Scheduled Services include:—

- (1) Specific Point Services from a designated base to specific points on the basis of unit rates that may be undertaken as the traffic warrants and that are not on a time schedule;
- (2) Chartered Services operated on the basis of the private chartering of an entire aircraft for a specific trip;
- (3) Contract Air Services which operate on one or more specific contracts. These do not operate on a time schedule nor need the contractor take the entire space of the aircraft;
- (4) Specialty Air Services concerned with large-scale forestry and utility surveys according to some specific agreement.

Trans-Canada Air Lines.—During the years 1950 and 1951, with two exceptions, emphasis was placed on increasing service on existing routes rather than geographic expansion of operations. On Apr. 1, 1950, a service between Montreal and New York was inaugurated; this service ties in with the Toronto-New York service, and four flights daily are operated on these routes.

The volume of passenger traffic on North American service in 1951 was the greatest in the Company's fifteen-year history; the number of passengers carried exceeded the previous peak year, 1950, by 9,945, and the total revenue-mileage flown increased by 11 p.c. A fourth daily trans-continental flight began on Apr. 1, 1951, and additional operations were provided on the majority of the other routes, including the trans-border services. Approximately 500 more airline seats were made available daily than at the height of the 1950 travel season and 10 p.c. more scheduled flying took place.

At Dec. 31, 1951, Trans-Canada Air Lines was providing service for passenger, mail and commodity traffic over nationwide routes, totalling 9,126 miles.

Trans-Canada Air Lines (Atlantic) Limited.—On Apr. 2, 1950, the Company began the first direct air service between Canada and the Southern United States, when Tampa, Florida, was included as a traffic stop on the route to the Bahamas and Jamaica.

On Apr. 1, 1951, a service was inaugurated between Montreal and Paris. This was the first direct link between Canada and Continental Europe to be provided by a scheduled Canadian carrier.

North Atlantic flight frequency rose to a daily round-trip by mid-summer of 1951 and continuing traffic was so heavy that this schedule was maintained throughout the remainder of the year. With record passenger traffic moving on both the North Atlantic and southern routes, the overseas services more than kept pace with the domestic operations in growth of business. In 1951, 22 p.c. more persons were transported on North Atlantic flights than in 1950, while the Bermuda and Caribbean passenger traffic increased by 41 p.c.

Overseas routes, touching at England, Scotland, Ireland, France, Bermuda, the Bahamas, Jamaica, Barbados, and Trinidad, totalled 8,688 miles at Dec 31, 1951.

1.—Passenger, Freight and Mail Traffic of Trans-Canada Air Lines, 1942-51

Source: Trans-Canada Air Lines Annual Report.

Year	Revenue Passenger Traffic ¹		Revenue Commodity Traffic ²		Mail Traffic
	No.	Passenger miles	lb.	ton-miles	ton-miles
1942.....	102,762	51,334,839	527,635	247,314	1,072,571
1943.....	140,276	78,508,427	1,114,206	526,363	1,623,802
1944.....	156,884	84,425,354	1,117,747	510,760	1,760,486
1945.....	183,121	106,088,111	1,261,935	500,687	1,571,180
1946.....	305,442	155,777,319	1,453,743	513,493	1,210,716
1947.....	427,967	179,808,562	2,041,315	764,105	1,275,909
1948.....	532,555	249,575,544	4,313,297	1,608,102	2,294,088
1949.....	648,574	310,699,767	5,471,013	2,160,644	3,403,810
1950.....	790,808	379,605,810	9,518,009	3,585,775	3,644,752
1951.....	930,691	450,840,623	10,826,333	3,861,583	3,969,371

¹ Includes non-scheduled service.

² Includes excess baggage and express.

2.—Operating Revenue and Expenditure of Trans-Canada Air Lines, 1942-51

Source: Trans-Canada Air Lines Annual Report.

Year	Passenger	Freight ¹	Mail	Total Operating Revenue ²	Operating Expenditure ³	Net Surplus (+) or Deficit (-) ⁴
	\$	\$	\$	\$	\$	\$
1942.....	3,065,453	202,480	3,211,922	7,337,318	6,628,399	+494,915
1943.....	4,213,599	390,163	3,515,807	9,379,501	8,974,902	+147,889
1944.....	4,456,768	376,516	3,802,395	9,192,522	8,948,388	+7,409
1945.....	5,462,940	361,177	4,250,939	10,512,588	10,250,272	+32,772
1946.....	8,047,124	378,185	3,780,509	12,810,805	13,926,061	-1,269,624
1947.....	10,450,524	534,359	3,808,197	15,297,347	16,796,492	-1,761,043
1948.....	14,469,578	888,917	4,648,775	20,866,936	21,624,057	-1,183,022
1949.....	19,460,395	1,161,612	5,400,000	26,523,969	27,472,728	-1,419,444
1950.....	24,183,501	1,667,827	5,400,000	31,810,684	31,318,613	+492,071
1951.....	28,666,505	1,913,703	5,741,000	37,043,289	32,670,654	+4,372,635

¹ Express and excess baggage.² Includes other revenue.³ Interest and exchange charges

excluded each year, except in 1946, 1947, 1948 and 1949.

⁴ Includes interest on capital invested.

Canadian Pacific Air Lines Limited.—This Company operates scheduled domestic services with a total of 9,525 route miles, and overseas services from Vancouver to Australia, New Zealand and the Orient, totalling 15,295 route miles.

The 15 scheduled domestic services operated by the Company supply regular transport between the larger cities and the far northern terminals and intermediate points. Additional licences have been obtained to permit the extension of operations to the Kitimat aluminum project in British Columbia, and to the uranium exploration centre at Goldfields in northern Saskatchewan.

The overseas services comprise a fortnightly service from Vancouver to Australia and New Zealand *via* San Francisco, Honolulu, Canton Islands and Fiji, and a weekly service to Tokyo and Hong Kong *via* the Great Circle. At the close of the year 1951, the South Pacific service was extended to include Auckland, New Zealand.

In August 1950, Canadian Pacific Air Lines Limited began transporting United Nations military personnel to the Korean war theatre, starting with twice weekly flights. In December this was increased to four weekly flights, one of which carries on from Tokyo to Hong Kong as the Company's regular weekly scheduled flight.

In 1951, gross revenue increased by 52 p.c. over the previous year. Operations in Canada and over the Pacific showed improvement; gross revenue from operations in Canada increased chiefly as a result of greater traffic volume, while revenue from Pacific operations was greater because the more frequent service to Tokyo was in effect for a full twelve months.

Following are traffic statistics for the years 1950 and 1951:

Item	Domestic		North Pacific		South Pacific	
	1950	1951	1950	1951	1950	1951
Revenue miles.....	No. 4,594,893	5,299,871	932,932	2,211,242	444,342	423,068
“ passengers.....	No. 145,055	172,646	3,181	10,183	1,571	1,586
“ goods.....	lb. 6,041,214	2,045,734	56,330	52,321	1,534	8,090
Mail.....	lb. 5,639,744	1,909,112	12,755	23,902	1,124	1,660

Independent Air Lines.—In addition to Trans-Canada Air Lines and Canadian Pacific Air Lines, there are four other domestic air lines licensed to operate scheduled services in Canada. These are:—

Central Northern Airways Limited, Winnipeg, Man.
 Maritime Central Airways Limited, Charlottetown, P.E.I.
 Queen Charlotte Airlines Limited, Vancouver, B.C.
 Rimouski Air Lines Limited, Mont Joli, Que.

The number of operating certificates in effect are: 44 scheduled; 312 non-scheduled, other than flying training; and 96 flying training.

Non-scheduled services are operated by the majority of the independent air lines. These services provide effective means of access to sections of Canada that are inaccessible by other modes of transportation, and act as feeders to the scheduled air lines. They also provide specialty services such as recreational flying, aerial photography and survey, aerial pest control, and aerial advertising.

Commonwealth and Foreign Scheduled Services.—In 1951, there were 14 operating certificates issued to Commonwealth and foreign scheduled services flying into Canada:—

Air France (Compagnie Nationale Air France).—Operating between points in Metropolitan France and Montreal, Que., Canada, direct or via Shannon, Ireland; Keflavik, Iceland, or The Azores and Gander, Canada; and New York, U.S.A.

American Airlines Inc.—Operating between Toronto, Ont., Canada, and New York, N.Y., U.S.A./Newark, N.J., U.S.A., direct or via Buffalo, N.Y., U.S.A.

British Commonwealth Pacific Airlines Limited.—The Canadian portion of the route operating between San Francisco, U.S.A., and Vancouver, Canada of the Trans-Pacific Service between Sydney, N.S.W., Australia, and/or Auckland, New Zealand, and Vancouver, Canada.

British Overseas Airways Corporation.—Operating between London, England, and Montreal, Canada, and between London, England, and New York, U.S.A., both routes via Prestwick, Scotland, or Shannon, Ireland, and Gander, Canada.

Colonial Airlines Inc.—(a) Operating between the terminals Ottawa and Montreal, Canada, and New York, U.S.A., via Burlington or Massena, U.S.A., and (b) between the terminals Montreal and Ottawa, Canada and Washington, U.S.A. via Massena, U.S.A.

K.L.M. Royal Dutch Airlines.—The Canadian portion of the route between the terminals Amsterdam, the Netherlands, and Montreal, Canada; and the Canadian portion of the route between the terminals Montreal, Canada, and Willemstad, Curaçao, North West Indies.

Northeast Airlines Inc.—Operating between Montreal, Canada, and Boston, U.S.A.

Northwest Airlines Inc.—Operating between Winnipeg, Canada, and Fargo, N.D., U.S.A.; and between Minneapolis/St. Paul, U.S.A. and Edmonton, Canada; Anchorage, Alaska, and beyond.

Pan American World Airways, Inc.—Operating between Seattle, U.S.A., and Fairbanks, Alaska, via Juneau, Alaska, and Whitehorse, Y.T., with a refuelling stop at Port Hardy, B.C., and/or Comox, B.C.; and between New York, N.Y., Philadelphia, Penn., Boston, Mass., all in the U.S.A., and Gander, Nfld., Canada; Shannon, Ireland; London, England.

Sabena (The Société Anonyme Belge D'Exploitation de la Navigation Aérienne).—Operating between Brussels, Belgium, and New York, U.S.A., via Shannon, Ireland, and Gander, Nfld.

Scandinavian Airlines System.—Operating between Stockholm, Sweden; Oslo, Norway; Copenhagen, Denmark; Prestwick, Scotland; Gander, Nfld.; and New York, U.S.A.

T.W.A. (Trans-World Airlines Inc.).—Operating between New York, Washington, Philadelphia, Boston, U.S.A.; Gander, Canada; The Azores; Shannon, Ireland; London, England; Paris, France; and beyond.

United Air Lines Inc..—Operating between Vancouver, B.C., and Seattle via Bellingham, U.S.A.

Western Air Lines Inc..—Operating between Great Falls and Cut Bank, U.S.A., and Lethbridge and Edmonton, Canada; via Calgary and Penhold, Canada.

Section 3.—Civil Aviation Statistics

Aircraft.—The Canadian aircraft industry on Mar. 31, 1952, consisted of the following companies making the civilian type of aircraft named:—

Canadair Limited, Montreal, Que., manufacturers of the *North Star*, *Canadair Four* and the converted *Canadair Dakota*;

Canadian Car and Foundry Company Limited, Montreal, Que., manufacturers of the *Norseman*;

DeHavilland Aircraft of Canada Limited, Toronto, Ont., manufacturers of the *Beaver*, *Chipmunk* and *Otter*;

Fairy Aviation Company of Canada Limited, Eastern Passage, N.S., conversion of trainer aircraft;

MacDonald Bros. Aircraft Limited, Winnipeg, Man., overhaul and conversion work;

Northwest Industries Limited, Edmonton, Alta., overhaul and conversion work;

A. V. Roe Canada Limited, Toronto, Ont., engaged in the design and construction of a jet-powered transport for inter-city operations, the *AVRO Jetliner*;

British Aeroplane Engines Limited, Vancouver, B.C., overhaul work;

Canadian Pratt and Whitney Aircraft Company Limited, Longueuil, Que., overhaul and maintenance work;

Canadian Wright Limited, Montreal, Que., overhaul and testing.

The principal statistics of the aircraft industry are shown for the latest available year (1949) in Chapter XVI, Manufactures.

Ground Facilities.—Early ground facilities for civil aviation consisted chiefly of municipal or flying-club airports adjacent to the larger urban centres and of numerous terminals from which commercial flying services operated, mainly into the northern mining regions. These airports formed the nucleus which, with many additions and improvements, became the chain of airports constituting the Trans-Canada airways operated by the Department of Transport. To-day, Canada is well supplied with airports and aerodromes scattered throughout the country. The Department of Transport retained a certain number of the airports that had been constructed for war purposes and others were made available to municipalities for local use. The airports, airfields and anchorages in Canada are as classified in Table 3; and a statement is given showing the number of airports and airfields by provinces equipped with control facilities and certain other facilities.

3.—Airports, Airfields and Anchorage, by Provinces, as at Mar. 31, 1951

NOTE.—Department of Transport figures: unlicensed airfields and anchorages not included.

Item	Nfld.	P. E. I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	N. W. T.	Y. uk on	C a n a d a
Landing Areas													
Canadian Pacific Airlines airports (land) and airfields..	—	—	—	—	7	1	—	—	2	1	—	2	13
Canadian Pacific Airlines airports (water) and anchorages.....	1	—	—	—	7	4	5	2	2	1	—	1	23
Department of Mines and Technical Surveys airports (land) and airfields.....	—	—	—	—	—	—	—	—	3	—	1	8	12
Department of Mines and Technical Surveys airports (water) and anchorages....	—	—	—	—	—	—	—	—	2	—	8	—	10
Department of Transport airports (land) and airfields..	3	—	5	5	11	40	5	6	8	23	10	—	116
Municipal airports (land) and airfields.....	—	11	2	3	8	18	7	14	11	15	—	—	89
Municipal airports (water) and anchorages.....	—	—	—	1	—	2	1	—	1	3	—	—	8
Provincial Air Services airports (water) and anchorages.....	—	—	—	—	—	14	10	1	—	—	—	—	25
Royal Canadian Air Force airports (land) and airfields	1	1	1	2	1	13	6	2	4	4	2	5	42
Royal Canadian Air Force airports (water) and anchorages.....	—	—	—	1	1	1	—	—	—	2	—	—	5
United States Army Air Forces airports (land) and airfields.....	2	—	—	—	—	—	—	—	—	—	1	—	3
Totals, Landing Areas..	7	12	8	12	35	93	34	25	33	49	22	16	346
SUMMARY													
Airports (land).....	6	12	8	10	27	72	18	22	28	43	14	15	275
Airports (water).....	1	—	—	2	8	21	16	3	5	6	8	1	71
Control and Auxiliary Facilities													
Airports (land) and airfield control.....	4	1	3	2	4	10	4	1	4	3	—	2	38
Airports (water) control....	—	—	1	—	—	2	—	—	—	2	—	—	5
Hard surfaced airports and airfields.....	5	2	9	8	12	39	15	13	14	21	3	2	143
Lighted airports (land) and airfields.....	5	2	5	6	12	34	8	9	15	27	11	9	143
Lighted airports (water)....	1	—	1	—	1	1	—	—	—	5	—	—	9

Air Traffic Control.—The function of Air Traffic Control is to expedite and maintain an orderly flow of air traffic, and to prevent collision between aircraft operating within controlled airspace and between aircraft and obstructions on the movement area of controlled airports. The following services are provided: (1) Airport Control, (2) Area Control, (3) Flight Information, and (4) Alerting for Search and Rescue.

- (1) Airport Control is designed particularly to provide air traffic control service in the vicinity of major civil airports where the volume and type of aircraft operations, together with weather conditions and other factors, indicate its need in the interest of safety.

Continued increase in air traffic, both civil and military, made it necessary to expand this service by the establishment of additional control towers. Aircraft operations for 1949, 1950 and 1951 totalled 711,560, 784,690 and 968,436, respectively—an increase of 256,867 or approximately 36 p.c. in a three-year period. Control towers are located at Patricia Bay and Vancouver, B.C.; Lethbridge, Calgary

and Edmonton, Alta.; Saskatoon and Regina, Sask.; Winnipeg, Man.; Windsor, London, Toronto, Ottawa, and North Bay, Ont.; Montreal, Cartierville and Quebec, Que.; Moncton, N.B.; Sydney, N.S.; and Gander, Nfld.

- (2) Area Control is designed particularly to provide air traffic control service to aircraft operating within controlled airspace during weather conditions that prevent a pilot from seeing other aircraft or obstructions and necessitates his reliance on instructions to conduct the flight. This service is provided by area control centres at Vancouver, B.C.; Edmonton, Alta.; Winnipeg, Man.; Toronto, Ont.; Montreal, Que.; Moncton, N.B.; and Gander, Nfld.
- (3) Flight Information is designed to provide advice and information useful for the safe and efficient conduct of flight, including weather reports and forecasts, field condition reports, and other related data of assistance to the pilot in planning or conducting a flight.
- (4) The Alerting for Search and Rescue service is designed to ensure that the appropriate organizations are notified of aircraft in need of search and rescue aid, and otherwise to assist such organizations as required. Area control centres are responsible for notifying these organizations promptly of non-arrival at destination of any aircraft for which a flight plan or flight notification has been received.

Summary of Operation Statistics.—The statistics given in Table 4 show the remarkable increase in recent years in passenger freight and mail traffic.

4.—Summary Statistics of Civil Aviation, 1946-51

NOTE.—Figures from 1921 are given in the corresponding table of previous Year Books beginning with the 1924 edition.

Item	1946 ¹	1947 ¹	1948 ¹	1949	1950	1951
Aircraft Miles Flown—						
Revenue..... No.	25,844,570	33,186,617	35,852,977	35,925,311	39,901,935	46,253,726
Non-revenue..... "	2,424,219	2,845,952	2,481,124	1,821,675	1,466,569	1,905,996
Totals..... "	28,268,789	36,032,569	38,334,101	37,746,986	41,368,494	48,159,722
Passengers Carried—						
Revenue ² No.	802,811	836,017	1,054,778	1,211,149	1,452,081	1,788,558
Non-revenue ³ "	24,356	46,450	41,695	45,763	48,113	53,154
Totals..... "	833,840	893,171	1,103,793	1,267,865	1,511,021	1,888,689
Passenger Miles—						
Revenue..... No.	206,776,408	237,986,178	321,704,118	392,507,141	474,367,165	585,701,475
Non-revenue ³ "	8,769,569	19,959,207	20,981,112	23,882,322	25,213,468	25,228,048
Totals..... "	215,545,977	257,945,385	342,685,230	416,389,463	499,580,633	610,929,523
Freight Carried—						
Revenue ⁴ lb.	23,656,502	31,633,437	33,633,045	32,852,373	42,141,292	53,542,103
Non-revenue..... "	1,335,998	2,357,529	2,696,744	3,232,369	3,443,521	4,129,524
Totals..... "	25,173,760	34,241,378	37,262,712	37,097,767	46,681,194	61,693,191
Freight Ton Miles—						
Revenue..... No.	1,892,391	2,985,618	4,248,630	4,669,861	6,420,693	8,274,995
Non-revenue..... "	410,560	684,622	1,209,630	1,645,052	1,658,520	1,900,940
Totals..... "	2,302,951	3,670,240	5,458,260	6,314,913	8,079,213	10,175,935
Mail carried..... lb.	5,930,338	6,965,895	10,110,252	13,506,220	14,241,523	16,485,568
Mail ton-miles..... No.	1,534,919	1,616,136	2,860,796	4,108,488	4,293,447	4,736,524

For footnotes, see end of table, p. 812.

4.—Summary Statistics of Civil Aviation, 1946-51—concluded

Item	1946 ¹	1947 ¹	1948 ¹	1949	1950	1951
Hours Flown by Aircraft— Transportation revenue.....No.	164,649	218,713	230,857	227,563	246,653	478,523
Transportation non-revenue.....“	19,542	25,338	20,373	14,770	12,409	22,738
Patrols, surveys, etc.. “	26,011	39,411	48,308	37,988	48,654	50,475
Totals..... “	210,202	283,462	299,538	280,321	307,716	551,736
Hours flown by crew....No.	449,844	..	..	..	..	..
Hours flown by passengers..... “	1,302,358	..	..	..	..	..
Horse-power hours flown by aircraft..... ¹⁰⁰⁰						
Gasoline consumption... gal.	11,278,759 ^s	13,922,451 ^s	17,030,203 ^s	16,987,122	22,088,575	29,596,490
Lubricating oil consumption..... “	149,829 ^s	184,454 ^s	225,239 ^s	227,382	275,370	333,557
Licensed civil airports (all types).....No.	161	273	286 ^r	336	279	
Licensed Civil Aircraft (all types)— Gross weight—					Year Ended Mar. 31, 1951	Year Ended Mar. 31, 1952
Up to 2,000 lb.....No.	639	986	1,001	1,018	1,169	1,170
2,001- 4,000 lb..... “	73	440	403	414	483	527
4,001-10,000 lb..... “	176	312	451	398	446	454
Over 10,000 lb..... “	68	135	166	—	—	—
10,001-20,000 lb..... “	—	—	—	30	32	31
Over 20,000 lb..... “	—	—	—	113	112	119
Totals, Aircraft..... “	956	1,873	2,021	1,973	2,242	2,301
Ownership, Commercial—						
Up to 2,000 lb.....No.	434	635	456	557	593	577
2,001- 4,000 lb..... “	57	310	258	264	279	282
4,001-10,000 lb..... “	124	261	356	261	300	387
Over 10,000 lb..... “	56	124	151	—	—	—
10,001-20,000 lb..... “	—	—	—	23	24	25
Over 20,000 lb..... “	—	—	—	102	101	113
Ownership, Other—						
Up to 2,000 lb.....No.	205	351	545	461	576	593
2,001- 4,000 lb..... “	16	130	145	150	204	245
4,001-10,000 lb..... “	52	51	95	137	146	67
Over 10,000 lb..... “	12	11	16	—	—	—
10,001-20,000 lb..... “	—	—	—	7	8	6
Over 20,000 lb..... “	—	—	—	11	11	6
Licensed Civil Air Personnel—		Year Ended Mar. 31, 1948	Year Ended Mar. 31, 1949	Year Ended Mar. 31, 1950		
Commercial pilots.....No.	88	76	65	56	44 ⁶	38 ⁶
Commercial pilots..... “	—	—	—	—	484 ⁷	807 ⁷
Senior commercial..... “	—	—	—	—	157	165
Airline transport..... “	—	—	—	—	87	165
Glider pilots..... “	—	—	—	—	33	77
Limited commercial pilots..... “	1,149	1,087	864	653	—	—
Transport pilots..... “	828	801	837	775	651	612
Private pilots..... “	1,123	1,910	2,491	2,603	3,546	4,441
Air navigators..... “	—	—	—	—	—	28
Air traffic controllers.. “	—	—	—	—	—	172
Air engineers..... “	1,269	1,534	1,640	1,623	1,546	1,402

¹ Excludes figures for non-commercial aviation.

foreign stations which are included in totals.

² Exclusive of passengers carried between

exclusive of freight carried between stations which is included in totals.

³ Includes employees other than crews.

by foreign carriers in Canada.

⁴ Exclusive of freight carried between stations which is included in totals.⁵ Includes purchases made⁶ Old type.⁷ New type.⁸ Licence now cancelled.

Table 5 shows civil aviation figures for 1949-51 by type of service. For a definition of scheduled and non-scheduled carriers, see p. 805. Statistics for international carriers include traffic over Canadian territory for both Canadian and foreign operators; a small traffic across Canadian territory and between foreign stations is also included. Statistics for Canadian carriers operating international routes are included both as "International" and "Canadian" but duplications are excluded from the totals.

5.—Summary Statistics of Civil Aviation by Type of Service, 1949-51

Year and Item		Canadian Carriers		Foreign Inter-national	Total
		Scheduled	Non-Scheduled and Other		
1949					
Aircraft Miles Flown—					
Revenue transportation.....	No.	23,136,870	11,424,902	1,363,539	35,925,311
Non-revenue transportation.....	"	915,601	897,050	9,024	1,821,675
Totals.....	"	24,052,471	12,321,952	1,372,563	37,746,986
Passengers Carried— ¹					
Revenue.....	No.	795,804	155,599	211,087	1,162,490
Between foreign stations.....	"	—	—	10,953	10,953
Non-revenue.....	"	39,854	2,219	3,690	45,763
Totals.....	"	835,658	157,818	225,730	1,219,206
Passenger Miles—					
Revenue.....	No.	367,702,955	9,742,339	15,061,847	392,507,141
Non-revenue.....	"	22,861,152	265,738	755,432	23,882,322
Totals.....	"	390,564,107	10,008,077	15,817,279	416,389,463
Freight Carried— ¹					
Revenue.....	lb.	15,349,958	15,231,790	2,215,245	32,796,993
Between foreign stations.....	"	—	—	1,013,025	1,013,025
Non-revenue.....	"	2,645,985	230,747	355,637	3,232,369
Totals.....	"	17,995,943	15,462,537	3,583,907	37,042,387
Freight Ton Miles—					
Revenue.....	No.	3,412,438	777,224	480,199	4,669,861
Non-revenue.....	"	1,450,810	15,568	178,674	1,645,052
Totals.....	"	4,863,248	792,792	658,873	6,314,913
Mail carried.....	lb.	11,769,964	371,834	1,364,422 ²	13,506,220
Mail ton-miles.....	No.	3,837,202	16,145	255,141	4,108,488
Hours Flown by Aircraft—					
Transportation revenue.....	No.	138,428	70,824	7,911	217,163
Transportation non-revenue.....	"	5,904	8,810	56	14,770
Patrols, surveys, etc.....	"	1,281	47,107	—	48,388
Totals.....	"	145,613	126,741	7,967	280,321
Gasoline consumption.....	gal.	16,574,129	1,792,646	1,186,801	19,553,576
Lubricating oil consumption.....	"	205,852	35,186	11,338	252,376

For footnotes, see end of table, p. 815.

5.—Summary Statistics of Civil Aviation by Type of Service, 1949-51—continued

Year and Item		Canadian Carriers		Foreign Inter- national	Total
		Scheduled	Non- Scheduled and Other		
1950					
Aircraft Miles Flown—					
Revenue transportation.....	No.	26,524,554	12,022,964	1,354,417	39,901,935
Non-revenue transportation.....	"	671,456	780,664	14,439	1,466,559
Totals.....	"	27,196,010	12,803,628	1,368,856	41,368,494
Passengers Carried—1					
Revenue.....	No.	1,017,040	155,053	218,923	1,391,016
Between foreign stations.....	"	—	—	10,827	10,827
Non-revenue.....	"	42,552	1,710	3,851	48,113
Totals.....	"	1,059,592	156,763	233,601	1,449,956
Passenger Miles—					
Revenue.....	No.	447,198,288	10,229,541	16,939,336	474,367,165
Non-revenue.....	"	24,195,382	192,489	825,597	25,213,468
Totals.....	"	471,393,670	10,422,030	17,764,933	499,580,633
Freight Carried—					
Revenue.....	lb.	21,470,229	17,895,198	2,683,763	42,049,190
Between foreign stations.....	"	—	—	1,096,381	1,096,381
Non-revenue.....	"	2,945,624	167,624	330,273	3,443,521
Totals.....	"	24,415,853	18,062,822	4,110,417	46,589,092
Freight Ton Miles—					
Revenue.....	No.	5,005,454	848,935	566,304	6,420,693
Non-revenue.....	"	1,491,003	10,102	157,415	1,658,520
Totals.....	"	6,496,457	859,037	723,719	8,079,213
Mail carried.....	lb.	12,751,448	361,827	1,128,248 ²	14,241,523
Mail ton-miles.....	No.	4,101,214	20,531	171,702	4,293,447
Hours Flown by Aircraft—					
Transportation revenue.....	No.	160,277	78,670	7,706	246,653
Transportation non-revenue.....	"	4,404	7,924	81	12,409
Patrols, surveys, etc.....	"	1,718	46,936	—	48,654
Totals.....	"	166,399	133,530	7,787	307,716
Gasoline consumption.....	gal.	19,136,428	1,978,947	973,200	22,088,575
Lubricating oil consumption.....	"	230,078	35,294	9,998	275,370
1951					
Aircraft Miles Flown—					
Revenue transportation.....	No.	30,332,841	13,882,322	2,038,563	46,253,726
Non-revenue transportation.....	"	1,123,164	775,214	7,618	1,905,996
Totals.....	"	31,456,005	14,657,536	2,046,181	48,159,722
Passengers Carried—1					
Revenue.....	No.	1,235,626	182,153	287,428	1,705,207
Between foreign stations.....	"	—	—	46,977	46,977
Non-revenue.....	"	43,894	1,515	7,745	53,154
Totals.....	"	1,279,520	183,668	342,150	1,805,338
Passenger Miles—					
Revenue.....	No.	540,310,306	13,397,808	31,993,361	585,701,475
Non-revenue.....	"	23,074,886	174,465	1,978,697	25,228,048
Totals.....	"	563,385,192	13,572,273	33,972,058	610,929,523

For footnotes, see end of table.

5.—Summary Statistics of Civil Aviation by Type of Service, 1949-51—concluded

Year and Item	Canadian Carriers		Foreign Inter-national	Total
	Scheduled	Non-Scheduled and Other		
1951—concluded				
Freight Carried—1				
Revenue..... lb.	27,575,021	22,593,883	3,269,740	53,438,644
Between foreign stations.....	—	—	4,021,564	4,021,564
Non-revenue..... "	3,168,327	202,171	759,026	4,129,524
Totals..... "	30,743,348	22,796,054	8,050,330	61,589,732
Freight Ton Miles—				
Revenue..... No.	5,973,629	1,062,672	1,238,694	8,274,995
Non-revenue..... "	1,635,402	15,871	249,667	1,900,940
Totals..... "	7,609,031	1,078,543	1,488,361	10,175,935
Mail carried..... lb.	13,446,028	494,380	2,545,150 ⁴	16,485,558
Mail ton miles..... No.	4,412,143	42,537	281,844	4,736,524
Hours Flown by Aircraft—				
Transportation revenue..... No.	185,755	96,283	10,730	292,768
Transportation non-revenue.....	7,546	7,614	32	15,192
Patrols, surveys, etc..... "	1,348	47,779	—	49,127
Totals..... "	194,649	151,676	10,762	357,087
Gasoline consumption..... gal.	21,662,791	2,357,458	5,576,241	29,596,490
Lubricating oil consumption..... "	228,432	50,204	54,921	333,557

¹ Excludes traffic interchanged between carriers.² Includes 421,627 lb. of mail between foreignstations. ³ Includes 292,908 lb. of mail between foreign stations.⁴ Includes 1,247,189 lb. of

mail between foreign stations.

6.—Capital Investment of the Department of Transport in Air Services,
Years Ended Mar. 31, 1949-51

NOTE.—Compiled from Department of Transport records.

Item	1949	1950	1951	Total as at Mar. 31, 1951
	\$	\$	\$	\$
Airways and Airports—				
Civil Aviation—				
Ordinary appropriations.....	—	—	—	849,053
Capital appropriations.....	8,998,529	10,127,684	6,114,094	37,624,738
War appropriations—				
Transferred from other government departments.....	7,892,411	135,849,609	233,011	—
Value of properties transferred to Crown Assets Disposal Corporation.....	Cr. 2,447,539	—	Cr. 58,644,833	213,053,694
Property retired through obsolescence, loss or abandonment.....	Cr. 103,703	Cr. 7,576	Cr. 367,675	—
Air Ministry of United Kingdom ¹	—	—	—	4,913,091
Telecommunications Division—				
Aviation Radio Aids—				
Ordinary appropriations.....	—	—	—	336,180
Capital appropriations.....	1,732,146	1,274,764	1,303,894	12,139,813
War appropriations—				
Transferred from other government departments.....	—	4,390,149	—	5,645,960
Totals, Airways and Airports.....	16,131,844	151,152,844 ²	Cr. 51,361,509	274,562,529

For footnotes, see end of table, p. 816.

**6.—Capital Investment of the Department of Transport in Air Services,
Years Ended Mar. 31, 1949-51—concluded**

Item	1949	1950	1951	Total as at Mar. 31, 1951
	\$	\$	\$	\$
Telecommunications Division (excluding Aviation Radio Aids)—				
Radio Act and Regulations.....	4,578	17,002	64,368	85,948
Radio Aids to Marine Navigation—				
Ordinary appropriations.....	176,658 ³	202,418	207,688	586,764
War appropriations.....	797,281 ³	—	—	797,281
Suppression of Radio Interferences.....	11,242	16,878	12,302	40,422
Totals, Other Radio Facilities.....	188,458	236,298	284,358	1,510,415
Meteorological Facilities—General—				
Ordinary appropriations.....	223,396	331,689	390,219	1,210,318
War appropriations.....	—	489,279	—	492,099
Totals, Meteorological Facilities.....	223,396	800,394 ²	390,219	1,702,417
Canadian Government Transatlantic Air Service.....	—	—	—	4,788,369
Grand Totals⁴.....	16,543,698	152,189,536²	Cr. 50,686,932	282,563,730

¹ Property constructed at Montreal (Dorval), Que., to Feb. 15, 1946, and North Bay, Ont., to Dec. 31, 1945, acquired by Federal Government under agreements of June 24, 1943, and June 5, 1944, respectively.

² Includes ordinary appropriations of meteorological aviation amounting to \$12,486 and war appropriations of \$469,300, other meteorological facilities amounting to \$594 and \$19,980, respectively. ³ Includes \$4,020 other ordinary appropriations and \$797,281 war appropriations. ⁴ Excludes expenditure for

construction and development of airways and airports from unemployment relief appropriations to the extent of \$3,811,164 made by Department of National Defence prior to establishment of Department of Transport in 1936; grants to municipalities to assist in development of airways and airports to the extent of \$4,025,635; and expenditure made by Department of National Defence (Air) or other Federal Government Departments which have not been transferred to Department of Transport.

**7.—Operation and Maintenance Expenditure and Revenue of the Department of
Transport in connection with Air Services Branch, Years Ended Mar. 31, 1949-51**

NOTE.—Compiled from Department of Transport records.

Expenditure	1949	1950	1951
	\$	\$	\$
Expenditure			
Air Transport Board.....	146,984	184,451	216,293
Air services administration.....	83,048	167,213	218,166
Airways and Airports: Civil Aviation and Aviation Radio Aids—			
Control of Civil Aviation.....	583,909	647,810	672,540
Construction Services—administration.....	—	—	712,994
Grants to aeroplane clubs.....	10,000	158,000	252,177
Grants to National Research Council.....	50,000	50,000	50,000
Airways and Airports, Operation and Maintenance—			
Ordinary.....	3,326,909	6,468,470	7,914,467
Aviation radio aids.....	3,446,428	4,022,365	4,064,678
Contributions to assist municipalities.....	25,000	97,297	196,027
Contributions to State of Michigan.....	20,000	30,420	24,849
Contribution to Trans-Canada Air Lines for improvements to airway facilities at Kinross, U.S.A.....	19,000	—	—
Contribution to International Civil Aviation Organization re Iceland Government air-aids to navigation.....	122,000	37,079	22,333
Contribution to Denmark in joint support of North Atlantic Air Navigation facilities in the Faroes and Greenland.....	—	174,311	70,172
Contribution to South Pacific Air Transport Council.....	—	—	224,500
Investigation of the "Canadian Pilgrims" aircraft accident.....	—	—	3,469
Airway and airport traffic control.....	903,409	991,496	1,054,674
Deficit: Trans-Canada Air Lines.....	2,933,240	4,317,593	—
Northwest Communication System—			
Operating deficit—demobilization and reconversion.....	233,356	54,310	—
Ordinary.....	—	—	39,703
War appropriations expenditure.....	1,208,520	1,016,085	—
Government Employees Compensation Act.....	10,852	—	—
Totals, Airways and Airports.....	12,892,623	18,065,236	15,302,533

7.—Operation and Maintenance Expenditure and Revenue of the Department of Transport in connection with Air Services Branch, Years Ended Mar. 31, 1949-51
—continued

Expenditure and Revenue	1949	1950	1951
	\$	\$	\$
Expenditure—concluded			
Telecommunications Division (excluding Aviation Radio Aids)—			
Administration of Radio Act and Regulations—Ordinary.....	634,008	1,011,211	802,727
Radio Aids to Marine Navigation—Ordinary.....	1,294,454	1,534,935	1,546,860
Suppression of radio interferences.....	283,310	296,574	323,997
Issue of radio receiving licences.....	611,919	637,381	675,780
Telegraph and Telephone Services—			
Administration, operation and maintenance.....	1,130,421	1,217,171	1,216,860
Construction and improvements.....	106,614	326,160	226,939
Government Employees Compensation Act.....	5,069	—	—
Totals, Telecommunications Division (excluding Aviation Radio Aids).....	4,065,795	5,023,432	4,793,163
Meteorological Facilities: General—			
Operation and maintenance.....	3,960,079	4,550,319	5,126,975
Government Employees Compensation Act.....	1,009	—	—
Totals, Meteorological Facilities.....	3,961,088	4,550,319	5,126,975
Totals, Expenditure	21,149,538	27,990,651	25,657,150
Revenue and Receipts			
Civil Aviation—			
Airways and Airports (including Aviation Radio Aids)—			
Private air pilots' certificates.....	2,822	2,589	3,995
Aircraft registration fees.....	4,461	3,703	3,586
Airport licences.....	570	366	580
Airworthiness certificates.....	1,575	905	815
Fines—Aeronautics Act and Regulations.....	1,124	1,207	793
Airport landing fees.....	426,742	1,558,816	1,791,191
Rental at airports.....	328,627	337,413	621,088
Outside and hangar space rental.....	342,403	309,350	364,472
Rental of equipment.....	13,534	10,499	11,927
Rental—employees quarters.....	87,195	192,151	128,568
Miscellaneous rentals.....	30,306	23,401	48,532
Power service.....	59,041	61,515	72,163
Concessions—			
Gasoline and oil.....	173,878	326,827	361,088
Taxi.....	29,897	20,379	21,743
Telephone.....	2,685	2,841	4,162
Restaurants and snack bars.....	—	5,649	19,684
Other.....	—	7,665	14,355
Telephone service.....	33,614	41,461	23,939
Airport radio service to aircraft.....	82,263	75,104	229,564
Radio message tolls.....	28,952	28,727	35,900
Mess receipts.....	27,950	23,957	29,262
Mess halls accommodation.....	—	—	5,388
Sales, miscellaneous.....	—	9,272	5,890
Aircraft servicing other than repairs.....	—	10,938	7,362
Observation roof—turnstiles.....	—	—	17,952
Miscellaneous revenue.....	28,954	18,163	47,540
Gander Airport—			
Airlines hotel accommodation.....	—	31,565	33,799
Skyways Club.....	—	64,356	81,629
Terminal charges.....	—	187,527	298,606
Novelty shop.....	—	49,280	12,362
Coal sales.....	—	22,361	27,832
Mess hall board.....	—	180,944	58,915
Airlines hotel dining-room.....	—	114,433	121,893
Airlines hotel bar.....	—	31,184	49,305
Skyways Club snack bar.....	—	281,220	290,222
Skyways Club bar.....	—	82,158	114,006
Laundry.....	—	28,595	34,018
Dry-cleaning plant.....	—	15,648	15,657
Recoverable services.....	—	35,057	57,508
Heating.....	—	78,675	112,021
Electricity.....	—	79,668	101,803
Bakery.....	—	34,774	49,945
Sanitary fees.....	—	7,875	7,774
Bus operation.....	—	16,868	5,313
Sundries.....	—	4,847	111
Refund of previous year's expenditure.....	40,992	21,516	113,273
Totals, Airways and Airports	1,747,585	4,441,449	5,457,591

7.—Operation and Maintenance Expenditure and Revenue of the Department of Transport in connection with Air Services Branch, Years Ended Mar. 31, 1949-51
—concluded

Revenue and Receipts	1949	1950	1951
	\$	\$	\$
Revenue and Receipts—concluded			
Telecommunications Division (excluding Aviation Radio Aids)—			
Radio operators' examination fees.....	1,255	1,013	990
Radio Station Licences—			
Aircraft station.....	7,749	7,819	8,755
Amateur experimental station.....	14,378	15,974	16,856
Commercial receiving station.....	231	224	239
Experimental station.....	590	880	760
Limited coast station.....	351	650	750
Municipal police private commercial station.....	113	133	413
Private commercial station.....	18,561	26,139	32,958
Public commercial station.....	3,905	4,880	6,790
Ship station.....	17,668	22,606	26,774
Technical or training school station.....	25	30	32
Sale of transport publications.....	806	1,104	357
Fines—Radio Act and Regulations.....	39,496	28,851	37,839
Radio Message Tolls—			
Department of Transport operated coast stations.....	127,197	113,580	100,475
Marconi operated coast stations.....	56,740	59,237	65,477
Rentals—living quarters—employees.....	17,930	22,104	22,345
Other.....	689	2,506	1,860
Government telegraph and telephone tolls.....	498,138	521,729	610,601
Mess receipts.....	—	1,854	1,816
Sundries.....	235	6,236	623
Refunds previous year's expenditure.....	9,794	8,831	63,836
Totals, Telecommunications Division.....	815,851	846,380	1,000,546
Meteorological Facilities—General—			
Rentals—living quarters—employees.....	14,470	29,403	36,849
Other.....	246	29	87
Sale of transport publications.....	853	1,034	1,574
Radio commercial message tolls—			
Department of Transport operated coast stations.....	3,440	1,495	1,530
Air-ground radio service.....	720	960	880
Communication facilities—inter-office.....	—	361	603
Sundries.....	55	1,171	6
Refunds of previous year's expenditure.....	5,056	4,773	8,454
Totals, Meteorological Facilities.....	24,840	39,226	49,983
Totals, Revenue and Receipts.....	2,588,276	5,327,055	6,508,120

No statistics are available regarding expenditure on flying operations by the Federal and Provincial Governments or by private individuals, but capital expenditure made by commercial air carriers for property as reported for the end of 1949 and 1950 is shown in Table 8.

8.—Cost of Property, Revenue and Expenditure for Scheduled and Other Commercial Air Carriers, 1949 and 1950

Year and Item	Commercial Canadian Carriers		
	Scheduled	Other	Total
1949	\$	\$	\$
Property Account—			
Aircraft.....	17,004,265	2,077,265	19,081,530
Aircraft engines.....	4,537,408	361,691	4,899,099
Buildings and improvements.....	3,720,142	668,419	4,388,561
Miscellaneous.....	3,711,489	668,363	4,379,852
Totals, Cost of Property.....	28,973,304	3,775,738	32,749,042
Revenue and Expenditure—			
Revenue.....	34,566,124	5,014,897	39,581,021
Expenditure.....	35,066,914	5,313,684	40,380,598

8.—Cost of Property, Revenue and Expenditure for Scheduled and Other Commercial Air Carriers, 1949 and 1950—concluded

Year and Item	Commercial Canadian Carriers		
	Scheduled	Other	Total
	\$	\$	\$
1950			
Property Account—			
Aircraft.....	14,421,026	1,801,957	16,222,983
Aircraft engines.....	3,958,155	353,424	4,311,579
Buildings and improvements.....	3,521,755	408,883	3,930,638
Miscellaneous.....	3,663,700	525,015	4,188,715
Totals, Cost of Property.....	25,564,636	3,089,279	28,653,915
Revenue and Expenditure—			
Revenue.....	43,600,117	5,463,486	49,063,603
Expenditure.....	42,445,956	5,527,719	47,973,675

Employees and Salaries and Wages.—The numbers of civil air personnel licensed in recent years are shown in Table 4, p. 812. However, these figures include pilots and engineers in the employ of the Federal Government and of private individuals as well as those not employed at all in the ordinary sense.

9.—Employees and Salaries and Wages in Civil Aviation, 1949 and 1950

Class of Employee	Scheduled		Non-Scheduled		Totals	
	No.	\$	No.	\$	No.	\$
1949						
General officers.....	349	1,796,230	51	178,029	400	1,974,259
Clerks.....	890	1,813,158	60	113,138	950	1,926,296
Pilots.....	196	1,697,354	143	490,525	339	2,187,879
Co-pilots.....	173	797,519	1	3,748	174	801,267
Despatchers.....	58	215,533	16	37,712	74	253,245
Communication operators.....	432	971,271	9	17,973	441	989,244
Stewards or other attendants.....	192	462,670	3	6,618	195	469,288
Air engineers.....	267	868,539	78	202,680	345	1,071,219
Mechanics.....	1,572	4,577,549	94	183,809	1,666	4,761,358
Airport employees.....	707	1,692,876	56	98,602	763	1,791,478
Stores employees.....	195	448,010	13	25,145	208	473,155
Other employees.....	815	2,120,591	33	59,748	848	2,180,339
Unclassified.....	—	—	110	201,238	110	201,238
Totals, 1949.....	5,846	17,461,300	667	1,618,965	6,513	19,080,265
1950						
General officers.....	342	1,811,154	51	195,308	393	2,006,462
Clerks.....	884	1,891,601	62	111,035	946	2,002,636
Pilots.....	202	1,675,636	159	596,839	361	2,272,475
Co-pilots.....	176	809,848	—	—	176	809,848
Despatchers.....	60	235,913	9	23,547	69	259,460
Communication operators.....	452	1,043,688	7	15,297	459	1,058,985
Stewards or other attendants.....	212	548,832	3	7,347	215	556,179
Air engineers.....	269	936,472	83	224,265	352	1,160,737
Mechanics.....	1,384	4,220,533	113	225,609	1,497	4,446,142
Airport employees.....	727	1,830,836	42	79,839	769	1,910,675
Stores employees.....	185	445,261	12	27,477	197	472,738
Other employees.....	759	2,031,486	57	79,932	816	2,111,418
Unclassified.....	—	—	87	185,020	87	185,020
Totals, 1950.....	5,632	17,481,260	685	1,771,515	6,337	19,252,775

THE INTERNATIONAL CIVIL AVIATION ORGANIZATION AND CANADA'S PARTICIPATION THEREIN*

The International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations established "in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically". The foundations of ICAO were laid at a Conference held at Chicago in December 1944 and Canada's delegates to that Conference, the Right Honourable C. D. Howe, Mr. H. J. Symington and Mr. J. A. Wilson, together with their advisers, played a most important part in assisting the Conference to arrive at the decisions which resulted in the preparation of the Convention on International Civil Aviation.

In order to understand the development and growth of ICAO, it is necessary to know something of what preceded it. While earlier attempts were made, particularly in Europe, to devise methods of international co-operation in respect of aviation, it was not until after the end of World War I that anything of great significance was achieved. The matter was considered very fully at the Versailles Peace Conference and, as a result, the International Convention for Air Navigation was signed at Paris in October 1919. The International Commission for Air Navigation (ICAN) which was established pursuant to that Convention filled, to a somewhat limited extent between the Wars, the place now occupied by ICAO. That Convention dealt mainly with the technical aspect of international flight and was designed to foster technical co-operation in the air. The membership of ICAN consisted mainly of European States and its scope was largely technical in character. Canada was a member of ICAN and was represented at many of its meetings but, owing to geographical position and the fact that the United States was not a member and Canadian civil aviation at that time was almost entirely domestic, the international consequences of Canada's participation were quite limited in character.

As a result of the great technical advances during World War II and the vast development of air transportation for military purposes, air transportation became a most important factor in world transportation. A number of Governments recognized, while the War was still in progress, that adequate provision for "order in the air" on a world-wide basis was absolutely essential. The United States took the lead and invited about 52 allied and neutral States to participate in a Conference which convened at Chicago in November 1944. Canada was keenly interested in planning for the future in the field of aviation and on Apr. 2, 1943, the Right Honourable W. L. Mackenzie King said in the House of Commons: "The Canadian Government strongly favours a policy of international collaboration in air transport and is prepared to support in international negotiations whatever international air-transport policy can be demonstrated as being best calculated to serve not only the immediate national interests of Canada but also our overriding interest in the establishment of an international order which will prevent the outbreak of another war". This statement is still the basis of Canadian international aviation policy. Before the United States convened the Chicago Conference, preparations were being made for Canada's participation in it and the Canadian draft convention on civil aviation, which was the earliest available complete plan, was

* Prepared by Brigadier C. S. Booth, Representative of Canada to the International Civil Aviation Organization.

tabled in the House of Commons on Mar. 17, 1944. This draft, later approved with some modifications by Parliament, was further revised at a Commonwealth Air Conference held at Montreal, Que., and also in discussions with United States authorities.

The final Act of the Chicago Conference contained the text of the following Agreements: the Interim Agreement on International Civil Aviation; the Convention on International Civil Aviation; the International Air Services Transit Agreement;* and the International Air Transport Agreement.†

It also contained 12 technical draft Annexes. The above instruments were opened for signature on Dec. 7, 1944.

Canada became a party to the Interim Agreement, the Convention and the Transit Agreement. For a number of reasons, very few States became parties to the Air Transport Agreement. The Interim Agreement came into force following its acceptance by 26 States on June 6, 1945, and the Provisional International Civil Aviation Organization (PICAO) was accordingly established. Pursuant to a decision taken at Chicago, Headquarters of PICAO was set up at Montreal, and the first meeting was held on Aug. 15, 1945. Upon the ratification of the Convention on International Civil Aviation by 26 States on Apr. 4, 1947, ICAO superseded the Provisional Organization. In accordance with the terms of the Convention, a decision was taken at the final meeting of the Assembly of PICAO that the permanent seat of the Organization would be at Montreal and the Government of Canada thereupon provided the Organization with suitable headquarters premises. Pursuant to arrangements made with Canadian National Railways, a modern ten-story office building, known as the International Aviation Building, was erected at the corner of Dorchester and University Streets, Montreal, and the Organization moved into this building in August 1949.

The Structure of ICAO.—The International Civil Aviation Organization is composed of an Assembly, a Council and certain other subsidiary bodies, and is staffed with an international secretariat. The Assembly meets annually and is composed of 57 Member States each of which is entitled to one vote. Except in respect of certain specific functions, which are allocated to the Council by the Convention, the Assembly is the supreme authority. The Council is a permanent body composed of 21 Member States elected by the Assembly every three years. Canada was a member of the PICAO Council and has continued to be a member of the Council of ICAO. All Council Member States maintain offices and resident representatives at Headquarters, where the Council is in session for the greater part of the year. The Council is responsible to the Assembly and is the executive body of ICAO. Under the Convention, it has a number of mandatory functions and a wide range of permissive functions which, together, cover the whole field of international civil aviation. In addition, it has the responsibility of deciding disagreements between Member States in regard to the interpretation or application of the Convention and has certain powers for making findings and recommendations in the case of disputes under the Air Services Transit Agreement and the Air Transport Agreement.

* The Transit Agreement provides for the exchange of the first two "freedoms".

† The Transit Agreement includes all five "freedoms": (1) The privilege to fly across the territory of a contracting State without landing; (2) the privilege to land for non-traffic purposes; (3) the privilege to put down passengers, mail and cargo taken on in the territory of the State whose nationality the aircraft possesses; (4) the privilege to take on passengers, mail and cargo destined for the territory of the State whose nationality the aircraft possesses; and (5) the privilege to take on passengers, mail and cargo destined for the territory of any other contracting State and the privilege to put down passengers, mail and cargo coming from any such territory.

Pursuant to the Convention, the Air Navigation Commission is composed of 12 members appointed by the Council from among persons nominated by the contracting States, having suitable qualifications and experience in the science and practice of aeronautics. The Commission considers and makes recommendations to the Council on all the technical aspects of international air navigation and, in particular, makes recommendations for the adoption and modification of Standards and Recommended Practices that are adopted as Annexes to the Convention. The Air Transport Committee, also established pursuant to the Convention, is composed of 12 members similarly appointed. This Committee considers and makes recommendations to the Council on matters in the economic field of international aviation. The Joint Support Committee is a Committee of Council that deals with matters in the field of joint international financing of air navigation facilities and services required for the benefit of international air navigation. The Finance Committee, a Committee of Council established pursuant to a resolution of the Assembly, performs the normal functions laid down in the financial regulations and is responsible for taking appropriate action to ensure that the moneys voted by the Assembly are properly spent and that the most efficient and economical method of carrying out the approved program is observed. The Legal Committee of ICAO was created pursuant to a resolution of the Assembly under which all contracting States are entitled to participate in the work of the Committee. A Canadian nominee is a member of the Air Navigation Commission and Canada's Representative on Council is a member of all the other Committees.

The Secretariat of ICAO is composed of about 425 members. Approximately 150 senior employees have been recruited on an international basis from 29 of the Member States of ICAO in accordance with the established policy of securing the widest possible geographical representation in the Secretariat consistent with the maintenance of high standards of efficiency. Most of the remainder of the staff are recruited locally.

For the purpose of organizing the work of ICAO, particularly in the technical field, the world has been divided into eight regions: North Atlantic, Caribbean, European-Mediterranean, Middle East, South East Asia, South American-South Atlantic, South Pacific-North Pacific and African-Indian. Also, for the purpose of assisting in the maintenance of liaison, particularly in regard to technical matters, between the Headquarters of the Organization and the Governments of the Member States, there are five Field Offices located at Cairo, Lima, Melbourne, Montreal and Paris. These offices are responsible for co-ordinating the work in the field of aviation of the various States in the respective areas and for assisting in arranging for the implementation of the recommendations of regional meetings.

Work in the Technical Field.—The most important activities of ICAO and the major part of the work accomplished lie in the technical field. Using the draft technical annexes to the Convention as a basis, the Organization has developed standards and recommended practices covering practically all the important technical aspects of international air navigation. The Air Navigation Commission which, in PICAQ and during the first two years of ICAO, operated as a Committee of unlimited membership, played a most important part in this work. Normally, the first step in developing standards is to invite all the contracting States to send representatives to a 'Division' meeting at which, on the basis of an agenda and documentation prepared by the Secretariat and the Commission, the technical experts contribute, from their knowledge and experience

of the subject, to the development of standards and practices designed to meet the needs and the best interests of all the Member States. The recommendations contained in the final report of the Division are studied by the Air Navigation Commission, with the assistance of the expert Secretariat, and then despatched together with any comments of the Commission, to all the Member States for their consideration. At this stage, all the Member States, whether or not they were represented at the meeting of the Division, are invited to submit their comments on the proposals developed in the Division. All comments received are examined and the recommendations of the Division once again reviewed. The Air Navigation Commission then presents to the Council its report and recommendations on the work of the Division. To the extent that these recommendations involve the adoption of or amendment to standards or recommended practices, a two-thirds vote (14 members) of the Council is required for their adoption. Standards and recommended practices, or amendments thereto, adopted by the Council, are then transmitted to all the States and unless, within 90 days or such longer period as the Council may prescribe, a majority of the Member States have notified to the Council their disagreement, the recommendations become effective under the Convention. After an additional period specified by the Council, during which the Member States are required to take the necessary steps to implement them through their own national laws or regulations, the recommendations come into force for all the Member States of the Organization. The only basis on which a State may be relieved of compliance with a standard established pursuant to the Convention is in cases where that State finds it impracticable to comply in all respects with any such international standard and to bring its own regulations or practices into full accord therewith or where a State finds it necessary to adopt regulations or standards differing in any particular respect from those established by the international standard. In such cases, the States concerned must immediately notify the Organization which, in turn, notifies all the other States of this "deviation". There can be no deviation over the high seas from Rules of the Air established by ICAO. Canada has participated very fully in the work of the Divisions and this participation has been greatly facilitated by the fact that practically all Division meetings are held at Montreal.

The following Technical Standards and Recommended Practices have been adopted as Annexes to the Convention:—

- | | |
|--|--|
| (1) Personnel Licensing. | (8) Airworthiness of Aircraft. |
| (2) Rules of the Air. | (9) Facilitation of International Air Transport. |
| (3) Meteorological Codes. | (10) Aeronautical Telecommunications. |
| (4) Aeronautical Charts. | (11) Air Traffic Services. |
| (5) Dimensional Units to be used in Air Ground Communications. | (12) Search and Rescue. |
| (6) Operation of Aircraft. | (13) Aircraft Accident Inquiry. |
| (7) Aircraft Nationality and Registration Marks. | (14) Aerodromes, Air Routes and Ground Aids. |

Regional Activities.—Many problems related to international air navigation are regional in character and ICAO periodically convenes meetings because it is necessary from time to time to review the situation within the several Air Navigation Regions. Invitations are issued to all of the States located in the Region and to those States whose aircraft regularly fly into or through the Region. Each Regional Meeting considers the over-all provision of and requirements for air navigation facilities and services in the Region, and specific recommendations are

made in any case where an existing deficiency or inadequacy is considered likely to affect seriously the safety and regularity of international air navigation. Reports of Regional Meetings come before the Council together with the recommendations of the Air Navigation Commission thereon and, where appropriate, Council adopts the recommendations and transmits them to the States concerned for consideration and action. In cases where the State or States directly responsible for the implementation of a recommendation find it impracticable to do so, the Council may, under Chapter XV of the Convention, initiate the necessary action leading towards the joint financing of the project.

ICAO has now compiled, through the joint efforts of the Field Offices, the Headquarters Secretariat and the Air Navigation Commission, a complete tabulation on a world-wide basis of all air navigation facilities and services necessary or desirable for the safety, regularity or efficiency of international air navigation. This list includes existing facilities and services as well as the deficiencies.

Joint Financing of Air Navigation Facilities and Services.—Under the Convention, every Member State is required, so far as it may find practicable, "to provide in its territory, airports, radio services, meteorological services and other air navigation facilities to facilitate international air navigation in accordance with the Standards and Practices recommended or established from time to time pursuant to this Convention". In some cases, because of lack of necessary funds or a limited interest in aviation, States do not find it practicable to provide certain facilities and services that are considered to be necessary in the interest of international air navigation. The Convention, under Chapter XV, places upon the Council the responsibility for initiating the necessary action to remedy the deficiencies in such cases which includes consultation with the State directly concerned and with other States affected and, in these cases, prescribes certain rules relating to the financing of air navigation facilities and services. Pursuant to these provisions, arrangements have been entered into by which the States whose aircraft fly the North Atlantic meet a substantial part of the cost of air navigation facilities and services furnished by the Governments of Iceland and Denmark in Iceland, Greenland and the Faroe Islands, respectively. These arrangements were concluded at Special Conferences at which Denmark and Iceland, together with the other States concerned, were represented. Contributions under these schemes are based on the actual proportion of use of the facilities in question by the aircraft of the States concerned. Canada is a party to both agreements and the Canadian contribution amounts to about 7 p.c. of the total cost. Under the North Atlantic Ocean Stations Agreement, the same States provide, either by cash contributions or contribution of ships, a network of 10 Ocean Weather Stations permanently located in the North Atlantic, the maintenance of which requires 25 vessels. Canada's responsibility under this Agreement is one ship. The principal function of these Weather Stations is to furnish meteorological information which contributes to the safe and economical operation of North Atlantic air services. They also provide aids to air navigation and are equipped to serve as search and rescue units in cases of emergency.

Work in the Economic Field.—While the economic aspects of international air transport constitute a relatively small proportion of the activities of ICAO, they are of very considerable importance.

For a number of reasons it is easier to secure international agreement in technical matters than in the economic field and this difficulty has frequently impeded the work of ICAO. At the Chicago Conference, there was a generally expressed desire to make provision for the extension on a uniform basis of the rights to fly internationally. Because of the difficulties involved, two separate agreements were provided—the International Air Services Transit Agreement and the International Air Transport Agreement. Forty-one States accepted the Transit Agreement but only 17 States (of which five have since denounced) accepted the Transport Agreement. During the life of PICAQ and thereafter in ICAO, studies and discussions were undertaken with a view to the development of a multilateral agreement on commercial rights in international transport. However, discussions in two Assemblies and in a Special Commission, convened at Geneva in November 1947, failed to produce an effective solution. It is generally agreed that the present system of bilateral exchange of routes and rights is not satisfactory but, although the matter has been given a great deal of further study, no complete solution has yet been found. Canada has consistently supported the multilateral principle.

An important achievement of ICAO has been in the development of standards and recommended practices in the field of facilitation of international air transport. In the early stages of international civil aviation, the main advantages of air travel, which are speed and the ability of aircraft to cross natural barriers, were considerably impaired by the great variety of national laws and regulations relating to customs, immigration, health and agricultural quarantine in connection with border clearances. This problem was vigorously attacked by ICAO and, at a Facilitation Division Meeting held at Geneva in May 1948, a comprehensive set of draft standards and recommended practices was prepared to deal with this problem, and these were later adopted by the Council as Annex 9 to the Convention. These standards and recommended practices were accepted by the Member States, including Canada, with relatively few deviations, and, as a consequence, there has been a great simplification and unification of border crossing procedures throughout the world. At the Second Session of the Facilitation Division held early in 1952, a number of proposals were made for additional and improved standards; these should be ready for adoption by the Council before the end of 1952.

Progress has been made with a number of other matters of considerable importance to airlines and to the general public who use them. These include Council recommendations to the Member States directed towards the elimination of double income and property taxation on airlines, certain taxes on fuel and oil and double and other burdensome insurance requirements. The statistical program of ICAO is of great importance to the Member States and invaluable to much of the work of the Council.

Work in the Legal Field.—The Comité International Technique d'Experts Juridiques Aériens (CITEJA), which was created pursuant to a recommendation adopted at the First International Conference on Private Air Law held at Paris in 1925, made considerable progress in the development of a code of private international air law through the preparation of draft international conventions for final adoption at periodic international conferences. The Chicago Conference recommended that Member States give consideration to the desirability of bringing about the resumption, at the earliest possible date, of the work of the CITEJA and of co-ordinating the activities of CITEJA with those of PICAQ and, in due course, ICAO.

The first post-war session of CITEJA was held at Paris in January 1946 and, at this session, Canada participated for the first time in the work of this Organization. The CITEJA continued to operate during the period of the Provisional Organization and, at the first session of the ICAO Assembly in 1947, arrangements were made for the establishment of the Legal Committee of ICAO and for the new Committee to take over the functions formerly exercised by CITEJA. Since that time the Legal Committee has carried on that work. A new Convention has been adopted on the International Recognition of Rights in Aircraft, the purpose of which is to safeguard, while aircraft are in foreign Contracting States, rights of property, possession or security in or over the aircraft, validly acquired by third parties, in accordance with the laws of the State in which the aircraft is registered as to nationality. A revision of the Rome Convention, which deals with damage caused by foreign aircraft to third parties on the surface, has been completed by the Legal Committee and will be considered by a Special Conference at Rome in September 1952. A revision of the Warsaw Convention, which governs the international carriage of goods and passengers by air, is also in an advanced stage and many other projects are under study in the private air-law field. Canada has participated throughout in all the meetings of the Legal Committee.

Co-operation with Other International Organizations.—As a specialized agency of the United Nations, ICAO has a formal agreement with the United Nations for the purpose of ensuring the fullest co-ordination and co-operation between the two Organizations and, for the same purpose, ICAO has working arrangements with a number of the other specialized agencies including the World Meteorological Organization, the World Health Organization, the Universal Postal Union and the International Telecommunications Union. These arrangements have proved to be of great value in avoiding duplication of effort and possible conflicts where there are overlapping interests.

United Nations Expanded Program for Technical Assistance.—Under the United Nations expanded program for technical assistance, technical assistance missions have been organized by ICAO and dispatched to a number of under-developed countries. Technical advisers have been provided to meet special needs and a comprehensive fellowship scheme was established under which nationals of countries needing assistance are given training in countries that are more advanced in aviation and have the necessary facilities. Canada has co-operated fully with ICAO in furnishing qualified personnel as members of missions and for specialized work and has also undertaken to provide fellowship training in certain fields of aviation.

Canada's Contribution to ICAO.—As already stated, Canada has participated fully in all phases of the work of ICAO and Canadian representatives have from the beginning made substantial and valuable contributions to the work of the Organization in the Assembly, in Council, in the Committees and in Divisional and Regional Meetings. In turn, Canada has received very substantial benefits as a result of the work of the Organization. The opportunities afforded the participants in ICAO meetings, by way of the exchange of views with technical, economic and legal experts from all parts of the world, are of considerable value both in broadening understanding of world-wide problems in all fields of civil aviation and in the understanding of national problems and characteristics of the other participants.

The Government of Canada has contributed to ICAO by granting privileges and immunities of a diplomatic character to the Organization itself, to the internationally recruited staff and to the representatives of the Member States permanently located at the Headquarters or attending meetings. Negotiations are under way between ICAO and the Government of the Province of Quebec and also with the authorities of the City of Montreal for similar privileges. When the arrangement was made for the establishment of the Headquarters premises at Montreal, it was agreed that rental charges would not include any profit element. Pursuant to this arrangement, Canada has contributed approximately \$70,000 annually towards rent. At the request of the Council of ICAO for further financial assistance in alleviating to some extent the high cost of maintaining the Organization at Montreal, the Government of Canada has offered, subject to approval by Parliament, further to subsidize the rent of ICAO in an amount which, together with the present contribution, will make a total contribution of approximately \$200,000 per annum. On the basis of this offer, rent of ICAO will compare very favourably with that of other specialized agencies located in Europe.

Canada's contribution towards the operating expenses of ICAO represents approximately 5 p.c. of the total annual budget which is about \$3,000,000.

PART VI.—WIRE COMMUNICATIONS*

Section 1.—Telegraphs

The early history of telegraphic communication in Canada is given in the 1934-35 Year Book, p. 778.

Federal Government Telegraph and Telephone Service.†—The function of the Telegraph and Telephone Section of the Department of Transport is to furnish wire communications for outlying and sparsely settled districts where commercial companies do not enter into the field and where the population must receive adequate communication services in the public interest. These services include: telegraph and telephone services to scattered settlements along the coast of Cape Breton Island; cable services to Campobello, Grand Manan and other islands in the Bay of Fundy, to Prince Edward Island and to a number of small islands in the Gulf of St. Lawrence; cable connections with Pelee and Manitoulin Islands in Ontario as well as telephone lines on the latter; some lines to northern outlying districts in Saskatchewan; telegraph lines from Edmonton to the Athabaska and Peace River country in Alberta in addition to an extensive telephone system in the latter area; telegraph and telephone communications around the coast of Vancouver Island, B.C., and adjacent islands; service to fishing, lumber and mining centres in the interior; and an overland telegraph and telephone line serving communities from Ashcroft, B.C., to Dawson, Yukon Territory.

As at Mar. 31, 1951, the Telegraph and Telephone Service comprised 7,608 miles of pole line, 23,095 miles of wire, 224.5 nautical miles of submarine cable, 49 radio stations and 405 offices. The number of messages handled during the year was 1,340,454, producing a gross revenue of \$674,464 and a net revenue of \$610,601.

* Except where otherwise noted, this Part has been revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics. The Division issues annual reports dealing with telegraph and telephone statistics.

† Revised by G. C. W. Browne, Controller of Telecommunications, Telecommunications Division, Department of Transport, Ottawa.

Telegraph Systems.—The Canadian telegraph systems are composed of lines owned by the Federal Government and by chartered railway and telegraph companies. The Canadian facilities, in proportion to population, are among the most extensive in the world, and are operated under great climatic and geographical difficulties.

1.—Summary Statistics of Canadian Telegraphs, 1942-51

NOTE.—Figures for 1920-41 will be found in the corresponding table of previous Year Books beginning with the 1933 edition.

Year	Gross Revenue	Operating Expenses	Net Operating Revenue	Pole-Line Mileage	Wire Mileage	Employees ¹	Offices	Messages, Land ²	Cable-grams and Marconi-grams ³	Money Transferred
	\$	\$	\$	miles	miles	No.	No.	No.	No.	\$
1942...	14,826,431	11,925,417	2,901,014	52,418	381,953	7,544	4,979	15,422,131	2,831,549	5,439,880
1943...	16,955,288	12,942,108	4,013,180	52,414	384,350	8,330	4,908	16,469,564	3,013,752	7,677,080
1944...	16,986,491	14,404,835	2,581,656	52,414	387,677	8,050	4,834	16,445,450	2,324,863	8,242,926
1945...	18,016,289	15,062,231	2,954,058	52,447	391,476	8,230	4,804	17,666,904	2,192,173	8,006,128
1946...	17,997,726	16,028,900	1,968,826	52,523	400,981	8,603	4,707	18,441,841	1,845,539	9,247,100
1947...	18,514,525	17,359,796	1,154,729	51,024	401,803	8,711	4,640	18,987,774	1,613,621	10,988,591
1948...	19,422,788	20,292,402	Dr.869,614	50,958	405,610	9,093	4,679	19,013,468	1,579,679	11,512,194
1949...	22,256,557	22,062,943	193,614	52,535	413,759	9,555	5,288	20,063,078	1,642,278	12,469,348
1950...	23,922,225	22,545,625	1,376,600	51,999	414,943	9,757	5,277	20,477,775	1,687,721	12,733,989
1951...	29,128,473	27,807,547	1,320,926	53,580	435,348	10,611	5,233	21,815,837	1,785,836	16,955,699

¹ Excludes commission operators.

² Includes messages to and from vessels on the Great Lakes and the St. Lawrence River and messages to and from stations.

³ Excludes messages relayed and includes paid wireless messages to and from ships in the Gulf of St. Lawrence and on the Atlantic Ocean.

Submarine Cables.—Four cable companies operate submarine cables landing in Canada: Cable and Wireless Limited; the Commercial Cable Company; the Western Union Telegraph Company; and the French Telegraph Cable Company. These companies operate to stations in the United Kingdom, the United States, Bermuda, Australia, New Zealand and St. Pierre and Miquelon Islands. The number of cables operating between connected stations and the length of cables are given in the following table.

2.—Cable Landings in Canada, 1950

Company and Station	Cables	Nautical Miles
	No.	No.
Cable and Wireless Limited—		
Halifax, N.S. to Harbour Grace, N't'd.—Harbour Grace, N't'd. to Porthcurnow, England.....	1	2,917
Halifax, N.S. to Horta, Azores—Horta, Azores to Porthcurnow, England.....	1	3,223
Bamfield, B.C. to Sydney, Australia.....	1	7,837
Bamfield, B.C. to Auckland, New Zealand.....	1	6,768
Halifax, N.S. to Bermuda.....	1	877
Commercial Cable Company—		
Canso, N.S. to Port aux Basques, N't'd.....	1	200
Canso, N.S. to Waterville, Ireland, via St. John's, N't'd.....	2	4,502
Canso, N.S. to Far Rockaway, N.Y., U.S.A.....	3	2,891
Canso, N.S. to Horta, Fayal, Azores—Horta, Azores to Waterville, Ireland....	2	5,873
St. John's, N't'd. to Waterville, Ireland.....	2	3,718
St. John's, N't'd. to Far Rockaway, N.Y., U.S.A.....	2	2,594
Western Union Telegraph Company—		
North Sydney, N.S. to St. Pierre and Miquelon Islands.....	2	396
North Sydney, N.S. to Island Cove, N't'd.....	2	634
North Sydney, N.S. to Colinet, N't'd.....	1	323

2.—Cable Landings in Canada, 1950—concluded

Company and Station	Cables	Nautical Miles
	No.	No.
Western Union Telegraph Company—concluded		
Canso, N.S. to Hammel, N.Y., U.S.A.....	2	1,594
Canso, N.S. to Duxbury, Mass., U.S.A.....	1	573
Canso, N.S. to St. Pierre and Miquelon Islands.....	1	254
North Sydney, N.S. to Canso, N.S.....	2	253
Hearts Content, N'l'd. to Valentia, Ireland.....	4	7,505
Hearts Content, N'l'd. to Rantem Hut, N'l'd.....	3	76
Bay Roberts, N'l'd. to Penzance, England.....	4	8,419
Bay Roberts, N'l'd. to Horta, Azores.....	1	1,341
Bay Roberts, N'l'd. to Hammel, N.Y.....	2	2,757
Placentia, N'l'd. to St. Pierre and Miquelon Islands.....	2	249
Islands Cove Hut, N'l'd. to St. Pierre and Miquelon Islands.....	1	130
French Telegraph Cable Company—		
Canso, N.S. to St. Pierre and Miquelon Islands.....	1	257

Section 2.—Telephones

A brief historical account of the early development of telephones in Canada is given in the 1934-35 Year Book, p. 781.

Telephone Systems.—The 2,912 telephone systems existing in 1950 included the three large provincial systems in Manitoba, Saskatchewan and Alberta, and smaller governmental systems in Ontario, Quebec and New Brunswick, together with the system operated by the Federal Department of Public Works and the National Parks of Canada, Department of Resources and Development. Also included were 24 municipal systems, the largest being operated by the cities of Edmonton, Fort William and Port Arthur. Of the 2,245 co-operative telephone companies, 1,008 were in Saskatchewan, 795 were in Alberta and 215 in Nova Scotia. The largest among the 456 stock companies operating telephone systems in 1950 were the Bell Telephone Company and the British Columbia Telephone Company. Over 64 p.c. of the total telephone investment in Canada belongs to the Bell Telephone Company, and their telephones in Quebec and Ontario constitute 59 p.c. of the total number for Canada.

Telephone Equipment.—During the period 1941-50, there was an increase of 1,354,946 in the number of telephones in use, representing an advance of 55 p.c. in telephones per 100 population.

Of the 2,917,092 telephones in Canada in 1950, 1,811,194 or 62 p.c. were operated from automatic switchboards and the remainder from manual switchboards. Automatic switchboards have completely displaced manual switchboards in the principal cities of the Prairie Provinces and are displacing them in the other provinces as equipment becomes available.

3.—Mileages of Pole Line and Wire, and Telephones in Use, 1941-50

NOTE.—Figures for 1911-40 will be found in the corresponding tables of previous Year Books beginning with the 1938 edition.

Year	Sys-tems	Pole-Line Mileage	Mileage of Wire	Telephones in Use					
				Business	Resi- dential	Rural ¹	Public Pay	Total	Per 100 Population
	No.	miles	miles	No.	No.	No.	No.	No.	No.
1941....	3,209	213,393	5,882,223	446,739	827,522	257,409	30,476	1,562,146	13.6
1942....	3,192	217,958	6,014,596	463,827	867,307	266,176	30,465	1,627,775	14.0
1943....	3,187	218,702	6,057,880	454,429	901,228	275,202	31,303	1,692,162	14.3
1944....	3,174	220,161	6,108,070	504,791	928,061	286,521	32,550	1,751,923	14.6
1945....	3,151	222,435	6,333,761	531,697	983,074	300,757	33,266	1,848,794	15.3
1946....	3,114	228,983	6,770,137	585,982	1,079,769	326,405	33,962	2,026,118	16.5
1947....	3,056	232,054	7,285,681	645,154	1,194,840	354,779	35,824	2,230,597	17.7
1948....	2,992	235,379	7,913,068	701,869	1,328,373	383,227	38,399	2,451,868	19.0
1949....	2,971	242,147	8,725,760	762,294	1,481,876	414,061	41,381	2,699,612	19.9
1950....	2,912	245,443	9,488,467	813,352	1,611,759	447,691	44,290	2,917,092	21.1

¹ Includes telephones on rural exchange lines and urban exchange lines that have more than four parties.

The density of telephones in the different provinces is influenced by the urbanization of the population because the number of telephones used for business purposes is much greater in cities and towns than in rural areas.

4.—Telephones in Use, by Provinces, 1949 and 1950

Year, Province or Territory	On Individual Lines		On 2- and 4-Party Lines		On Rural Lines		Private Branch Exchanges and Extensions		Public Pay Stations	Total	Tele- phones per 100 Population
	Busi- ness	Resi- dence	Busi- ness	Resi- dence	Busi- ness	Resi- dence	Busi- ness	Resi- dence			
1949	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Nfld....	3,150	949	—	7,723	281	1,404	3,380	1,521	260	18,668	5.4
P.E.I....	1,235	1,232	249	2,836	414	3,263	1,035	263	64	10,591	11.3
N.S....	9,935	19,999	1,043	29,258	2,145	17,717	12,039	4,605	1,178	97,919	15.2
N.B....	6,345	10,647	1,305	21,013	1,691	13,169	9,669	2,681	1,021	67,541	13.1
Que....	71,307	98,090	16,039	252,709	13,953	55,579	123,439	24,073	16,302	671,491	17.3
Ont....	107,645	147,572	20,957	474,127	9,645	168,728	188,323	65,226	15,803	1,188,026	26.9
Man....	15,571	42,101	142	28,320	3,172	19,551	20,977	3,986	2,661	136,481	17.5
Sask....	16,943	39,369	516	1,435	4,268	51,456	10,095	2,403	626	127,111	14.8
Alta....	24,144	55,047	51	174	1,486	22,351	19,153	3,612	1,215	127,238	14.6
B.C....	32,629	8,606	934	125,820	5,061	28,727	43,966	6,331	2,251	254,325	22.8
Yukon....	22	—	51	148	—	—	—	—	—	221	2.8
Totals, 1949....	288,926	423,612	41,287	943,563	42,116	371,945	432,081	114,701	41,381	2,699,612	19.9
1950	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Nfld....	4,730	2,912	169	7,896	64	914	3,524	1,168	258	21,635	6.1
P.E.I....	1,293	1,280	242	3,102	404	3,538	1,167	328	66	11,420	11.9
N.S....	10,522	22,948	988	32,710	2,088	18,753	13,066	5,525	1,270	107,870	16.4
N.B....	6,589	11,725	1,228	23,549	1,739	13,865	10,270	3,004	1,014	72,983	14.0
Que....	77,734	104,736	13,545	284,846	15,525	62,104	132,432	27,137	17,621	735,680	18.5
Ont....	117,308	161,141	16,061	501,953	10,420	163,111	204,788	70,544	16,966	1,262,292	28.0
Man....	16,172	45,325	200	34,237	3,533	21,104	22,492	4,902	2,637	150,602	18.9
Sask....	17,370	44,154	4	28	3,618	56,189	10,897	2,431	705	135,396	15.5
Alta....	26,541	61,311	69	1,043	1,520	23,619	21,442	4,815	1,263	141,623	15.8
B.C....	34,723	8,738	704	130,377	5,011	40,491	47,006	7,801	2,490	277,341	24.4
Yukon....	10	—	66	93	17	64	—	—	—	250	3.1
Totals, 1950....	312,992	464,270	33,276	1,019,834	43,939	403,752	467,084	127,655	44,290	2,917,092	21.1

Telephone Finances and Calls Served.—The steady increases in capitalization, revenue and expenditure, salaries and wages and number of employees of telephone companies over the ten years 1941-50, are shown in Table 5.

5.—Financial Statistics of Telephones, 1941-50

NOTE.—Figures for 1911-40 will be found in the corresponding tables of previous Year Books, beginning with the 1938 edition.

Year	Capitalization		Cost of Property and Equipment	Gross Revenue	Operating Expenses	Net Operating Revenue	Salaries and Wages ¹ , ²	Employees ²
	Capital Stock	Funded Debt						
	\$	\$	\$	\$	\$	\$	\$	No.
1941.....	133,807,363	163,938,306	372,639,967	79,369,496	68,691,602	10,677,894	29,003,719	20,103
1942.....	135,034,375	165,634,194	386,164,071	87,057,252	75,221,887	11,835,365	31,580,290	20,360
1943.....	136,566,967	163,430,008	393,230,035	94,406,757	81,894,162	12,512,595	33,581,699	20,694
1944.....	137,719,691	161,307,878	401,862,799	101,082,353	87,739,283	13,343,070	37,261,134	21,978
1945.....	138,680,893	153,931,250	418,434,346	109,899,862	96,417,884	13,481,978	41,830,117	25,599
1946.....	158,430,612	156,099,974	454,214,793	120,675,038	105,750,974	14,924,064	54,147,432	33,170
1947.....	183,469,710	171,810,793	521,183,575	134,666,857	116,623,149	18,043,708	66,623,983	35,578
1948.....	194,465,399	238,762,614	615,941,540	150,533,349	131,570,434	18,962,915	77,497,980	38,851
1949.....	229,208,219	280,736,941	716,519,781	169,113,048	153,066,308	16,046,740	90,634,477	42,326
1950.....	274,088,405	300,765,453	806,826,198	198,823,483	178,193,661	20,629,822	102,093,078	45,396

¹ Includes salaries and wages chargeable to capital account.
chewan.

² Excludes rural lines in Saskat-

6.—Financial Statistics of Telephones, by Provinces, 1949 and 1950

Year, Province or Territory	Capital Liability	Cost of Property and Equipment	Gross Revenue	Expenses	Net Income	Salaries and Wages ¹	Employees
	\$	\$	\$	\$	\$	\$	No.
1949							
Nfld.....	3,599,105	3,747,830	672,353	555,396	116,957	327,075	202
P.E.I.....	1,132,048	2,114,346	494,053	441,099	52,954	221,779	150
N.S.....	13,779,701	21,469,667	5,239,692	4,486,138	753,554	2,504,071	1,438
N.B.....	15,974,936	19,593,534	4,223,845	3,735,098	488,747	2,190,756	1,165
Que.....	330,219,313 ²	183,356,134 ²	113,607,560 ²	105,850,496 ²	7,757,064 ²	27,370,900	11,797
Ont.....	10,960,296	315,259,432	5,804,387	5,173,220	631,167	39,189,374	18,188
Man.....	24,913,073	38,927,231	7,395,115	6,195,055	1,200,060	4,168,857	2,274
Sask.....	40,943,327	40,902,605	8,410,070	7,104,896	1,305,174	2,606,608 ³	1,283 ³
Alta.....	21,361,978	31,692,138	8,767,429	5,812,620	2,954,809	3,367,042	1,438
B.C.....	46,996,383	59,425,941	14,480,240	13,694,399	785,841	8,677,362	4,388
Yukon.....	65,000	30,923	18,304	17,891	413	10,653	3
Totals, 1949....	509,945,160	716,519,781	169,113,048	153,066,305	16,046,740	90,634,477	42,326
1950							
Nfld.....	4,136,335	4,121,100	798,598	680,444	118,154	362,448	242
P.E.I.....	1,534,678	2,291,835	549,867	503,586	46,281	233,931	156
N.S.....	16,389,707	25,299,490	5,927,750	5,052,636	875,114	2,790,683	1,589
N.B.....	17,991,176	22,677,118	5,272,668	4,412,575	860,093	2,368,550	1,154
Que.....	368,386,496 ²	210,001,473 ²	134,501,306 ²	123,751,542 ²	10,749,764 ²	30,724,930	12,518
Ont.....	11,208,291	351,073,913	6,280,668	5,680,478	600,190	43,659,660	19,273
Man.....	30,177,022	45,998,204	8,260,168	7,149,357	1,110,811	4,967,794	2,556
Sask.....	44,708,321	43,680,200	9,340,203	7,738,357	1,601,846	3,053,983 ³	1,388 ³
Alta.....	24,356,375	35,500,106	10,142,492	6,680,484	3,462,008	4,002,450	1,632
B.C.....	55,900,455	66,151,836	17,730,332	16,526,522	1,203,810	9,915,902	4,885
Yukon.....	65,000	30,923	19,431	17,680	1,751	13,047	3
Totals, 1950....	574,853,858	806,826,198	198,823,483	178,193,661	20,629,822	102,093,078	45,396

¹ Includes wages charged to expenses and to capital.
in both Quebec and Ontario are included under Quebec systems.

² Statistics of Bell Telephone Company

³ Excludes employees and wages for rural

Telephone Calls.—Table 7 is based on estimates made by systems operating almost 90 p.c. of all telephones in Canada. Actual count of calls on days of normal business was made and, after adjustment for incompleting calls, holidays, Sundays, etc., the average was multiplied by 365. The long-distance calls, in practically all cases, were the long-distance calls actually completed.

7.—Local and Long-Distance Calls and Averages per Telephone and per Capita, 1941-50

NOTE.—Figures from 1928 will be found in the corresponding tables of previous Year Books, beginning with the 1939 edition.

Year	Local Calls	Long-Distance Calls	Total Calls	Total Calls per Capita ¹	Averages per Telephone		
					Local	Long-Distance	Total
	No.	No.	No.	No.	No.	No.	No.
1941.....	2,971,780,000	39,747,000	3,011,527,000	262	1,902	25.4	1,927
1942.....	2,954,644,000	44,230,000	2,998,874,000	257	1,815	27.2	1,842
1943.....	2,929,446,000	50,348,000	2,979,794,000	253	1,731	29.8	1,761
1944.....	2,955,975,000	56,678,000	3,012,653,000	252	1,687	32.4	1,719
1945.....	3,145,492,000	64,788,000	3,210,280,000	266	1,701	35.0	1,736
1946.....	3,484,248,000	74,757,000	3,559,005,000	290	1,720	36.9	1,757
1947.....	3,760,569,000	82,695,000	3,843,264,000	306	1,686	37.1	1,723
1948.....	4,025,342,000	91,875,000	4,117,217,000	321	1,642	37.5	1,680
1949.....	4,454,024,000	105,232,000	4,559,256,000	339	1,650	39.0	1,689
1950.....	4,894,719,000	117,892,000	5,012,611,000	366	1,678	40.4	1,718

¹ Per capita figures are based on official estimates of population given at p. 143.

PART VII.—RADIO-COMMUNICATIONS

In the 1945 Year Book at pp. 644-646, an outline is given of the development of administrative control over radio-communication in Canada. See also p. 742 of this volume.

Section 1.—Administration*

The administration and regulation of radio-communication in Canada is carried out by the Telecommunications Division of the Department of Transport. The radio activities of the Division may be summarized as follows: (1) the administration of national and international radio laws and regulations and of regional agreements, involving the issuance of radio licences, inspection of radio stations, certification of radio equipment, examination of operators, allocation and monitoring of frequencies, compilation and settling of international accounts for radio messages, investigation and suppression of inductive interference to radio reception; and (2) construction, maintenance and operation of radio-communication stations and of radio aids to marine and air navigation.

National and international radio laws and regulations include the Canadian Broadcasting Act, 1936, the Radio Act, 1938, and Regulations made thereunder; the International Telecommunication Convention and Radio Regulations annexed thereto; the Inter-American Radiocommunications Convention; the Inter-American Arrangement Concerning Radiocommunications; the North American Regional Broadcasting Agreement; those articles of the International Civil Aviation Convention applicable to aeronautical radio requirements; the Canada Shipping Act, 1934,

* Revised in the Department of Transport, Ottawa.

and Radio Regulations for Ship Stations issued thereunder, and that part of the International Convention for the Safety of Life at Sea applicable to radio requirements for ships.

Licensing and Operation.—In all branches of radio, basic control is exercised over the right to establish a station, assignment of frequencies, operator standards, operating procedure, and general regulations concerning the manner in which radio stations are used.

Under the Broadcasting Act, 1936, applications for licences to establish broadcasting stations, or for modification of existing stations, are referred to the Canadian Broadcasting Corporation for its recommendations to the Minister of Transport before being dealt with by the Department of Transport. The Canadian Broadcasting Corporation also controls the linking up of stations that form networks and, in addition, the character of programs being broadcast. With these exceptions, the control of broadcasting stations is carried out by the Telecommunications Division of the Department of Transport.

The standard broadcast band is crowded with stations that are capable of interfering with one another over the entire North American region, particularly at night. A plan for the accommodation of the largest number of stations with the least interference was evolved as a result of extensive studies conducted by Cuba, the Dominican Republic, Haiti, the Bahama Islands, Mexico, the United States and Canada and was embodied in the North American Regional Broadcasting Agreement.

Before a new standard broadcasting station can be licensed or before modifications can be made in an existing station, engineering briefs covering the selection or change of frequency, amount of power and design of the directional antenna system must be approved by the Department of Transport and notification sent to the signatory countries of the North American Regional Broadcasting Agreement. After the establishment or change is completed, proof of performance must be submitted to establish that the actual installation is in accordance with the approved plan.

The allocation of high frequencies and their efficient utilization requires reasonably accurate information on the transmission properties of the ionosphere which vary with the season, the sunspot cycle and other factors. This information is obtained from hourly measurements of the ionosphere made at some 70 points throughout the world and analyzed by the United States Bureau of Standards at Washington, D.C. The Canadian measurement stations are located at St. John's, Nfld.; Resolute Bay, Cornwallis Island and Baker Lake, N.W.T.; Fort Chimo, Que.; Churchill, Portage la Prairie and The Pas, Man.; Ottawa, Ont.; and Prince Rupert, B.C.; data from these stations are correlated by the Defence Research Board. Five frequency monitoring stations are maintained at suitable points across Canada to check operating frequencies of all classes of radio stations to ensure that they do not depart from the assigned frequency by an amount greater than permitted by the international conventions.

Under the Safety of Life at Sea Convention and the Canada Shipping Act, most passenger ships and larger cargo ships must be fitted with radiotelegraph or radiotelephone equipment, primarily for use in case of distress. Approval is given for each make and model of equipment that comes up to the required standard and,

in addition, the ship station as a whole is inspected before the licence is issued and periodically thereafter. Foreign ships are subject to inspection before sailing from Canadian ports to ensure that they conform with the requirements of the Safety of Life at Sea Convention.

Analogous inspections of aircraft radio stations are carried out. Standards are provided specifying in detail the requirements to be met to ensure an airworthy installation. A certificate of airworthiness is granted to manufacturers for each type or model of aircraft radio equipment that has been demonstrated to meet the requirements. Only type-certificated equipment is accepted for use on scheduled airlines, though other equipment, if inspected, is acceptable for other aircraft.

Marine and aeronautical radio operator standards and related regulations are covered by international agreement. The International Telecommunication Convention prescribes the qualifications for radio operators on mobile stations, and the Radio Act, 1938, provides that all operators, both commercial and amateur, must pass examinations to prove their ability to operate the respective classes of stations on which they are engaged. Competent operators are required on all classes of stations in order that the technical requirements prescribed under international agreement be closely adhered to and are particularly essential in the case of ships and aircraft stations in the interests of safety of life.

Investigation and Suppression of Inductive Interference.—Under the Broadcasting Act the use of electrical equipment which will produce harmful interference to broadcast reception is not permitted. The Radio Division of the Department of Transport maintains 50 cars equipped for measuring and locating sources of interference to broadcast reception. In addition to locating the sources of interference, advice is given as to how it can be suppressed or eliminated. These cars operate from the permanent Radio Inspection Offices located in 25 cities throughout Canada.

1.—Investigations of Inductive Interference, Years Ended Mar. 31, 1948-51

Item	1948	1949	1950	1951
	No.	No.	No.	No.
Sources Investigated—				
Electrical distribution systems and power lines.....	1,459	1,602	1,919	1,836
Domestic and commercial electrical apparatus.....	5,035	5,499	5,383	7,756
Defective receivers and radio apparatus.....	1,433	1,031	934	1,054
Industrial, scientific and medical apparatus.....	1,474	887	1,196	456
Miscellaneous (external cross-modulation, etc.).....	—	—	2	2
Totals.....	9,401	9,019	9,434	11,104
Action Taken—				
Sources definitely reported cured.....	6,428	7,289	7,219	8,976
Sources not yet reported cured.....	2,725	1,635	2,130	2,029
Sources having no economic cure.....	248	95	85	99

Industrial, scientific and medical apparatus is brought under strict control, in accordance with Regulations for Controlling Radio Interference and under the authority of Section 23 of the Canadian Broadcasting Act, 1936. Regulations require that radiation from such apparatus, that is liable to cause interference to radiocommunications, must be suppressed, either by shielding or by replacing the apparatus with a non-interfering type. The Department of Transport conducts type-tests on diathermy and industrial heating apparatus submitted by manu-

facturers, and the types that fulfil the requirements of the Department are listed as non-interfering. The radiation from all such sources on communication frequencies must not exceed the tolerances specified by the Canadian Standards Association.

Radio Revenue.—Regulations concerning the rendering and settlement of international accounts are contained in the International Telecommunication Convention and Regulations. Sources of revenue include commercial ship and land stations and interstation messages handled by Departmental ships and land stations, radiotelegrams exchanged by foreign ships through Canadian coast stations, private commercial traffic via Departmental airway radio stations, and radio services rendered to aircraft of private airline companies by such stations. The volume of messages and words handled during the year ended Mar. 31, 1951, and the revenue therefrom, together with revenue from licence fees, examination fees, fines and forfeitures, rentals, etc., are given in Table 2.

2.—Messages Handled (including retransmissions), and Revenue collected by the Department of Transport, Year Ended Mar. 31, 1951

Item	Messages	Words	Revenue
	No.	No.	\$
Marine—			
East Coast.....	334,180	10,124,185	88,969
Great Lakes.....	64,315	1,422,735	21,119
West Coast.....	313,735	7,387,456	44,966
Hudson Bay and Straits.....	152,463	8,734,747	4,865
Premium revenue.....	—	—	6,041
Airways—			
Private, commercial and airline messages.....	4,301,863	112,764,782	35,960
Radio service to airline companies.....			229,564
Totals, Marine and Airways.....	5,166,556	140,433,905	431,484
Other Radio Revenue—			
Examination fees—Radiotelegraph Operators' Certificates of Proficiency.....			990
Fines and forfeitures under the Radio Act, 1938.....			37,844
Licence Fees—			
Aircraft stations.....			8,755
Amateur experimental stations.....			16,856
Private commercial stations.....			33,371
Public commercial stations.....			6,790
Ship stations.....			26,774
Miscellaneous.....			1,781
Mess Receipts—Radio Aviation.....			18,424
Publications.....			357
Power service.....			17,793
Refunds on previous year's expenditure.....			67,541
Rentals—			
Employees' quarters.....			118,415
Equipment, transmitter space, etc.....			11,291
Sundry sales and services.....			611
Transmission lines privileges.....			171
Miscellaneous.....			6,326
Total, Other Radio Revenue.....			374,091
Total, Radio Revenue¹.....			805,575
Revenue from radio receiving and private broadcasting station licences, etc. ²			5,236,298

¹ Applied to the operations of the Department of Transport.
² Section 14 (1) of the Canadian Broadcasting Act, 1936, provides that, "The Minister of Finance shall deposit, from time to time, in the Bank of Canada, or in a chartered bank to be designated by him, to the credit of the Corporation (a) the gross amount of moneys received in each year from licence fees in respect of private receiving licences and private station broadcasting licences without deducting therefrom any costs of collection or administration".

Table 3 shows the number of receiving station licences issued in the year ended Mar. 31, 1951, in comparison with previous years.

3.—Private Receiving Station Licences¹ Issued, by Provinces, Years Ended Mar. 31, 1947-52

Province or Territory	1947	1948	1949	1950	1951	1952
	No.	No.	No.	No.	No.	No.
Newfoundland.....	...	...	...	21,323	44,483	48,874
Prince Edward Island.....	10,626	12,173	11,825	11,152	10,862	11,323
Nova Scotia.....	87,043	91,940	99,477	102,927	105,317	109,422
New Brunswick.....	57,159	68,484	75,559	76,581	74,418	75,363
Quebec.....	491,823	534,797	567,257	616,200	635,002	659,742
Ontario.....	628,075	677,299	704,993	715,290	708,012	724,892
Manitoba.....	108,985	118,823	126,586	135,582	125,371	137,647
Saskatchewan.....	129,447	135,095	155,177	164,751	164,070	169,842
Alberta.....	125,289	131,849	134,666	147,132	157,345	174,588
British Columbia.....	168,950	173,097	181,821	186,108	187,142	194,527
Yukon and N.W.T.....	427	470	438	399	413	384
Canada.....	1,807,824	1,944,027	2,057,799	2,177,445	2,212,435	2,306,604

¹ Includes licences issued free, numbering 10,673 in 1947, 10,676 in 1948, 12,782 in 1949, 15,810 in 1950, 18,056 in 1951 and 20,303 in 1952. See Table 4 for classification for 1951.

Section 2.—Total Radio Stations and Radio Services

The total number of radio stations in operation in Canada and on ships and aircraft registered therein are shown by classes in Table 4. Of these stations, 447 were operated by the Department of Transport. The Department of National Defence, in addition to stations established for military purposes, operated 11 permanent stations and two summer stations, situated along the Mackenzie River and in Yukon Territory, on behalf of the Department of Resources and Development. The Department of Resources and Development operated 78 stations to provide communication and time-signal service for survey parties and for the protection and administration of National Parks. The Department of Public Works operated one station, the Department of Agriculture five stations, the Department of National Health and Welfare five stations, the Department of National Revenue one station, and the National Research Council 23 stations, 17 of which were experimental.

Stations operated by the Canadian Broadcasting Corporation numbered 71 and those by private owners, 173.

4.—Radio Stations in Operation, by Class, as at Mar. 31, 1951

Class	No.	Class	No.
Department of Transport Stations		Department of Transport Stations	
Coast.....	8	—concluded	
Combined coast, radiotelephone, L.F. direction finding and radar.....	1	Ionosphere.....	9
Combined coast, radiotelephone and L.F. direction finding.....	11	H. F. direction finding.....	2
Combined coast, radiotelephone and frequency modulated radio relay.....	1	Monitoring.....	5
Combined coast and radiotelephone.....	27	Land.....	1
Combined coast, radiotelephone and radio beacon.....	1	Ship (Class A).....	29
Radiobeacon.....	34	Aircraft.....	29
Combined radiobeacon and L.F. direction finding.....	2	Radio range.....	42 ¹
Combined radiobeacon and radiotelephone Radiotelephone.....	15	Combined radio range, radiotelegraph and radiotelephone.....	51 ¹
Combined aeronautical radiotelephone and radiotelegraph.....	1	Lighthouse radiotelephone.....	135
		Fan marker.....	11
		Weather reporting.....	5 ²
		Frequency modulated radio relay.....	10
		Loran (Long range aid to navigation)...	3

For footnotes, see end of table.

4.—Radio Stations in Operation, by Class, as at Mar. 31, 1951—concluded

Class	No.	Class	No.
Other Stations		Other Stations—concluded	
Ship (Class A).....	2,739	Commercial receiving (special).....	136
Ship (Class B—Receiving only).....	22	Amateur experimental.....	6,774
Limited coast.....	15		
Aircraft.....	1,053	Private Radio Receiving Stations	
Public commercial.....	109	Fee paid.....	2,194,379
Private commercial.....	5,782	Free to the blind.....	8,591
Municipal police private commercial.....	201	Free to hospitals and charitable institutions.....	69
Private commercial broadcasting—		Free to schools.....	8,862
Operated by the Canadian Broadcasting Corporation.....	71 ¹	Free to crystal receivers.....	3
Operated by private owners.....	173	Free to Federal Government....	141
	244		2,212,435
Technical or training schools.....	7		
Experimental.....	165		
Commercial receiving.....	422	Total, All Stations.....	2,230,551

¹ Station location ("Z") markers are installed at 91 radio range stations.² Two stations at Port Harrison, Que., and Coppermine, N.W.T., also perform restricted coast station service during the season of navigation, but since they are primarily weather-reporting stations they are shown under this heading only.³ Includes 19 repeater stations.

The above classes are numerous and complicated by the fact that many of them perform closely related functions. Descriptions of the services provided by different types of government-operated stations are given in the 1951 Year Book, pp. 804-808. The principal services provided by stations not operated by the Federal Government are as follows:—

Public Commercial Licensed Services.—The Canadian Marconi Company is licensed to operate a public commercial station with transmitting equipment at Drummondville, Que., and receiving equipment at Yamachiche, Que., for the purpose of communicating with a similar station located at St. John's, Nfld., thus providing a direct radiotelephone circuit between Newfoundland and the mainland.

Commercial Trans-Oceanic Radiotelegraph and Radiotelephone Service.—As at June 7, 1950, the Canadian Overseas Telecommunication Corporation took over the operation of the long-distance beam radiotelegraph service formerly operated by the Canadian Marconi Company between Montreal (Drummondville) and Great Britain, Australia, Bermuda and Jamaica, and the radiotelephone service between Montreal and Great Britain.

Commercial Point-to-Point Radiotelephone Services.—The North-West Telephone Company operates a radiotelephone service between points in British Columbia not hitherto served by telephone communications. Under licences granted by the Department of Transport, the Company has established 15 permanent public commercial radiotelephone stations in that Province. These stations are authorized to provide communication to 261 private commercial radiotelephone stations located at isolated points in that Province. This Company is also licensed to establish limited coast stations at Lulu Island, Power River, Vancouver, Nanaimo, Victoria, Agassiz, Althorp Point, Alert Bay and Prince Rupert, B.C., to provide a ship-to-shore service. These stations, used in conjunction with the ordinary telephone exchange, provide a duplex-radiotelephone service to 261 isolated points and certain ships at sea.

The North-West Telephone Company is also licensed to provide emergency radiotelephone communication at any point in British Columbia and to carry out tests with a view to extending the existing radiotelephone service throughout the Province.

To provide trans-river communication in the lower St. Lawrence area, the following companies: La Compagnie de Téléphone de Charlevoix et Saguenay, La Compagnie de Téléphone de Kamouraska, the Quebec Telephone Corporation, Gulf St. Lawrence Telephone Company, and the Quebec North-Shore Paper Company operate stations at La Malbaie, Tadoussac, Rivière-du-Loup, Rimouski, Matane, Montmagny, St. Antoine de l'Île aux Grues, Forestville, Trinity Bay and Baie Comeau, Que.

The wireline facilities between Saint John, N.B., and Digby, N.S., between Charlottetown, P.E.I., and New Glasgow, N.S., and between Red Head, N.B., and Mount Hanley, N.S., are supplemented by radiotelephone links. The stations at Saint John and Red Head are operated by The New Brunswick Telephone Company, and the station at Charlottetown is operated by The Island Telephone Company. Terminals at Digby, New Glasgow and Mount Hanley are operated by the Maritime Telegraph and Telephone Company.

The Bell Telephone Company of Canada operates radiotelephone facilities between Leamington and Pelee Island, Ont.

The Manitoba Telephone System operates radiotelephone links involving stations at the following points: Riverton, Manigotagan, Hecla Island, Gimli, Norway House, Bissett, Great Falls, The Pas, Snow Lake and Winnipeg, Man. In addition, the System operates stations at Gimli and Norway House, Man., to provide terminal service with ships on Lake Winnipeg.

Canadian Pacific Air Lines Limited operates a public commercial radiotelephone service consisting of public commercial radiotelephone stations located at Sioux Lookout and Pickle Lake, which are used in conjunction with the ordinary telephone exchanges to provide telephonic communication to privately owned stations located at isolated points in the Sioux Lookout and Pickle Lake areas of Ontario.

Norwestco Communications Limited operates a public commercial radiotelephone service consisting of stations located at Kenora, Red Lake, Ball Lake, Sioux Narrows, Dryden, Sioux Lookout, Minaki, Redditt and Laclu, Ont., which are used in conjunction with the ordinary telephone exchanges to provide telephonic communication to privately owned stations at isolated points throughout the northwestern part of Ontario.

Provincial Government Services.—Provincial authorities use radio services in many Departments. Table 5 shows the number of stations operated by the Provincial Governments.

5.—Radiocommunication Stations Operated by Provincial Governments, as at Mar. 31, 1951

Province	Stations	Province	Stations
	No.		No.
Newfoundland.....	7	Manitoba.....	66
Nova Scotia.....	9	Saskatchewan.....	332
New Brunswick.....	4	Alberta.....	194
Quebec.....	149	British Columbia.....	458
Ontario.....	763	Total.....	1,982

Other Radiocommunication Services.—Radiotelegraphy and radiotelephony are used throughout Canada to provide a means of maintaining contact with isolated points beyond the reach of the regular telegraph and telephone facilities.

Radiocommunication systems consisting of fixed and mobile stations are operated by over 200 municipal departments across Canada. The departments include police, fire, engineering, hydro and other public utilities. The use of radio for taxi dispatching purposes continued to grow throughout 1951 and the operation was authorized of approximately 550 base stations and 4,545 mobile stations. Public utilities, power companies, and provincial power commissions use radio to provide emergency telegraph and telephone communications between their power plants and distribution centres and 707 licences for such stations were issued during 1951, including 191 receiving stations in patrol cars.

During 1951, approximately 308 radio stations were operated by oil and mining exploration companies in connection with their business.

Commercial air-line operators, including those performing charter services only, were licensed for 814 ground communication stations, 26 beacon stations and 355 aircraft stations (including 37 receiving stations installed in aircraft). In addition to the commercial air carriers, numerous individuals and other business organizations, such as manufacturing and mining companies, oil companies, etc., were also licensed to operate radio equipped aircraft and associated ground stations in connection with the performance of their normal business. These airline operators, individuals and business organizations operated a total of 930 ground stations and 1,053 aircraft stations.

Radio Aids to Navigation.—*Marine Radio Stations.*—Detailed information covering all marine radio aids to navigation is contained in the annual publication, *Radio Aids to Marine Navigation*. Copies of this publication and of supplementary *Notices to Mariners* issued in connection therewith may be obtained upon request from the Department of Transport, Ottawa.

Coast Radio Stations.—The primary purpose of the coast radio station organization is to provide radiocommunication facilities whereby any ship within 500 miles of Canada's coast may establish communication with shore. Twenty-one stations on the East Coast and Hudson Bay and Strait, seven stations on the Great Lakes and nine stations on the West Coast broadcast information daily to navigators at advertised hours. In addition, urgent information, such as hurricane warnings, is broadcast immediately upon receipt.

The Vancouver Coast Station (VAI) maintains long range radiocommunication with ships of any nationality at sea, while the Halifax (CFH) and Vancouver (CKN) Coast Stations participate in the British Commonwealth scheme for providing similar radiocommunication services with ships. Station CFH is operated jointly by the Department of Transport and the Royal Canadian Navy.

Coast Radio Direction Finding Service.—There are 14 coast radio direction finding stations in operation—eight on the East Coast, five on Hudson Bay and Strait, and one on the West Coast. These direction finding stations continue to enjoy an enviable reputation for efficiency and accuracy. During the year ended Mar. 31, 1951, 19,769 bearings were given without charge to ships and aircraft.

Radiobeacon Service.—Radiobeacons are established for the purpose of enabling any ship or aircraft equipped with a direction finder to determine its bearing or direction in relation to the radiobeacon station. There are 52 radiobeacons in operation—26 on the East Coast, 17 on the Great Lakes, and 9 on the Pacific Coast.

Generally speaking, in clear weather each station, at advertised hours, transmits its characteristic for three periods of one minute separated by silent intervals of two minutes. In foggy weather all stations operate continuously, maintaining a uniform time cycle of 3 minutes, each station transmitting in its proper sequence for one minute separated by silent intervals of 2 minutes.

At Flat Point, N.S., Partridge Island, N.B., Red Islet, Que., Caribou Island, Gros Cap Lightship, Hope Island, Main Duck, Southeast Shoal, Cove Island, Burlington Bay, Michipicoten Harbour, Long Point, Port Weller, Ont., Amphitrite Point and Point Atkinson, B.C., the radiobeacon signals are synchronized with the emissions of the fog alarms for distance finding at those point during foggy weather.

In addition to the above radiobeacon facilities, ships equipped with direction finding apparatus may, upon request, obtain signals for the purpose of taking bearings from any of the coast stations. During the year ended Mar. 31, 1951, 161 such requests for signals were handled.

Loran Stations.—Loran (long range aid to navigation) is a system of position finding based on the difference in the time arrival of pulse type radio signals transmitted from a pair of stations. This time difference is measured on a Loran receiver and is used in conjunction with specially prepared charts or tables to establish a line of position. The intersection of two or more lines of position determined from two or more pairs of stations provides the required position.

Medical Advice to Ships at Sea.—Ships at sea may obtain medical advice through any of the Department of Transport's coast stations. Messages from ships in this connection are forwarded to the nearest medical officer of the Department of National Health and Welfare and the reply is transmitted to the ship.

Assistance Rendered by Radio to Vessels in Emergency.—Government radio stations rendered assistance to 113 ships and aircraft reported in danger or distress, during the fiscal year ended Mar. 31, 1951.

Aids to Air Navigation.—Radio aids to air navigation are provided from coast to coast and from the United States border to the Arctic along the airways used by the many Canadian airlines, United States airlines flying over Canadian territory, and many Canadian and United States military aircraft. To construct and maintain these many facilities, trained engineers and technicians are located at 6 district offices: Moncton, N.B.; Montreal, Que.; Toronto, Ont.; Winnipeg, Man.; Edmonton, Alta.; and Vancouver, B.C. The large communication stations at Gander, Nfld., are under the administration of the Moncton office.

Radio Ranges.—The principal radio aid to air navigation provided by the Department of Transport is the radio range. These stations, located approximately every 100 miles along airways, provide specific track guidance to pilots by means of audible signals. The signals may also be used for the purpose of obtaining direction finding bearings from the aircraft. In addition, radiotelephone communications are provided between the ground and aircraft by means of which pilots may obtain weather and other information concerning the safety of flight. There are now 93 stations in operation. Two stations at Frobisher, N.W.T., and Cape Harrison, Nfld., were taken over from the United States military authorities, during 1951.

Radio Beacons.—These stations provide radio signals with which pilots may use their direction finding equipment in order to obtain relative directional bearings to assist in the navigation of their aircraft. Eight of these stations are now in

operation, new ones having been established at Cambridge Bay, N.W.T.; Moose Jaw and Prince Albert, Sask.; Turner Valley, Alta.; and Cape St. James, B.C. (the latter being operated by the Marine Radio Aids Section). The radiobeacon at Sandspit, B.C., has been placed in continuous operation and the one at Whitehorse, Yukon Territory, decommissioned.

Fan Markers.—These facilities, operating on very high frequencies, provide a pilot with an indication of when he is directly overhead. Normally, they are placed on an airway to inform the pilot when he may safely lose altitude after passing high terrain or to indicate accurately distance from an airport. Eleven of these stations are now in operation, one new station having been commissioned at Campbell Cross, Ont.

Station Location Markers.—These facilities are similar to fan markers except that the signal radiated is such that aircraft may receive the same indication irrespective of the direction of flight. They are installed at the same location as a radio range to enable a pilot to determine when he is exactly over the station, thus obtaining definite indication of position. Station location markers are installed at all radio range sites except at Killaloe, Ont., and Mecatina, Que.

Direction Finding Stations.—A direction finding station for determining the bearing of aircraft from the station was taken over from United States military authorities at Cape Harrison, Nfld. This station is capable of obtaining bearings on aircraft transmitting on high and very high radio frequencies.

Instrument Landing Systems.—Instrument Landing Systems provide radio signals which, when received by special radio equipment aboard aircraft, permit pilots to approach airports for landing during periods of very low visibility. An installation normally consists of a localizer transmitter providing lateral guidance to the runway, a glide path transmitter providing slope guidance to the approach end of the runway, two marker transmitters providing distance indication from the runway at approximately four and one-half miles and 3,500 ft., respectively, and a low power radiobeacon (compass locator) to assist in holding procedures and lining up on the localizer course. The localizer and marker transmitters operate on very high frequencies, the glide path on ultra high frequencies, and the compass locators on low and medium frequencies. Twenty-one instrument landing systems are now in operation, new installations having been made at Edmonton, Alta.; London, Ont.; Moncton, N.B.; and Dartmouth and Sydney, N.S. Construction work is continuing on installations at Windsor, Ont., and Torbay and Gander, Nfld.

Aeronautical Communication Stations.—In order to assist in providing the required communication between aircraft and the ground, radio stations operating for the most part on high frequencies are located at strategic points across the country and into the Arctic. These stations provide communication to both domestic and international air carriers. There are now 31 of these stations in operation. The communications stations at Gander and Goose Bay, Nfld., Moncton, N.B., Montreal, Que., and Vancouver, B.C., form a major contribution on the part of Canada to international aviation. The services provided by these stations may be divided broadly into three classes: (1) communication facilities for meteorological services; (2) communication facilities for the air traffic control services; and (3) facilities for the benefit of the airline operating agencies to provide communication with their aircraft and between their dispatch offices.

Since (3) is provided solely for the convenience of the airline operating agencies, a system of charges was introduced during 1950-51 to recover from the airlines the cost of providing this portion of the service. The charge at present is \$13 per aircraft per oceanic crossing, and the yield for a year is estimated at \$132,000. The charges will be adjusted from time to time depending upon any change in the cost of provision for the service.

Very High Frequency Communications.—Owing to the overcrowded conditions of the high frequency portion of the radio spectrum and to the fact that communication in the very high frequency portion of the spectrum is relatively free from atmospheric interference, progress is being made in providing air-ground communications on the latter frequencies. Very high frequency air-ground communication facilities are now provided at 52 radio range stations and in 18 airport control towers. Very high frequency equipment has been provided also in all control towers and in a large number of airport vehicles to facilitate direction of traffic on the airport surface.

Improvements in Radio Aids to Air Navigation.—An investigation is under way on a new type of Radio Aid to Air Navigation known as the VHF Omnidirectional Range. This type of facility, unlike the existing type of Radio Range, does not limit the aircraft using the station to one of four distinct courses. Instead, it is of a type which enables the pilot in the aircraft to select at will his desired course. These stations operate in the very high frequency band between the portion reserved for the ILS localizers and that portion used for very high frequency Aeronautical Communications. The complete program involves testing two different models of this type of facility at Uplands, Ont., a site near the Ottawa airport. The first, now in operation, uses a fixed antenna array, whereas the second will have a rotating antenna system. Proof of performance tests are being made on each type of station.

Section 3.—The Canadian Broadcasting Corporation*

The history and development of the Canadian Broadcasting Corporation is given in the 1947 Year Book, pp. 737-740.

The Canadian Broadcasting Corporation operates under authority of the Canadian Broadcasting Act, 1936, and is headed by a Board of ten Governors, chosen to give representation to the principal geographic divisions of Canada, and a full-time Chairman. The Board determines and supervises policy, but day-to-day operations and executive direction are the responsibility of the General Manager. The organization of the CBC consists of the following Divisions: Executive, Personnel and Administration, Finance, Engineering, Program, Press and Information, Commercial, Broadcast Regulations and Station Relations.

Under the Canadian Broadcasting Act, 1936, the CBC is responsible for regulations controlling the establishment and operation of networks, the character of all programs broadcast over its own and privately owned stations, and the proportion of time that may be devoted to advertising in broadcast programs. The CBC neither exercises, nor authorizes any private station to exercise on its behalf, censorship of any broadcast program. The responsibility of seeing that the regulations are observed rests with the individual station management.

Frequency Modulation.—The development of frequency modulation is given in the 1948-49 Year Book, p. 773. On Apr. 1, 1952, there were five CBC and 30 privately owned frequency modulation stations in operation.

* Prepared by Donald Manson, General Manager, Canadian Broadcasting Corporation, Ottawa.

Television.—In April 1949, the Government of Canada adopted an interim plan for the development of television that, in accordance with the Canadian Broadcasting Act, 1936, entrusted the general direction of television broadcasting in Canada to the CBC Board of Governors who will arrange for television operations by the Corporation. In a further statement of policy on Dec. 8, 1952, the Government announced its readiness to consider applications for licences for private commercial television from Canadian stations in areas where these will not be duplicating CBC television facilities, on the basis that there should be as wide a coverage of Canada as possible without duplication. The Government also proposed provision of a loan to the CBC for the purpose of building stations at Vancouver, Winnipeg, Ottawa and Halifax.

During 1949-50, TV channels were assigned to the Canadian Broadcasting Corporation for proposed television operations at Toronto, Ont., and Montreal, Que. Frequency Channels 2 and 5 were allocated to Montreal where the Corporation expects eventually to operate two outlets, one French and one English. The first to be used will be Channel 2 operating from 54 to 60 Mc/s. Channel 5 will operate from 76 to 82 Mc/s. Channel 9, to be used at Toronto, will operate from 186 to 192 Mc/s.

In addition to these frequencies, the CBC will use microwave frequencies in still higher bands to enable it to establish direct links from studio to transmitter and from mobile units to studio or transmitter or to both. Some of these will be in the 2,000 Mc/s band and others in the 7,000 Mc/s band.

The Toronto studios and transmitter building, topped by a 500-foot tower and antenna, were built on CBC property at 354 Jarvis Street, Toronto. At Montreal, a high antenna tower was erected on the top of Mount Royal and a transmitter building is located at the base of the tower. Programs are carried from television studios, at the rear of the Radio Canada Building, to the transmitter by microwave link. Each building houses a 5 kw. transmitter. Television studio equipment and two mobile television units for Toronto and for Montreal, ordered from England, have been installed.

The Directors of Television, Technical Directors, Program Directors, and other key personnel have been appointed, and additional personnel have joined the television staff since the inception of the CBC's TV training course in the autumn of 1951. This course included lectures on theory and practical work which embraced all phases of television production. At the conclusion of the training scheme, the staff had an opportunity to continue closed-circuit rehearsals for a few months prior to the inauguration in September 1952 of a regular CBC television service at Toronto and Montreal.

Broadcasting Facilities.—Under Sect. 24 of the Canadian Broadcasting Act, the CBC is required to review all applications for licences for new stations, applications for increases in power, and changes in frequency or location. Two considerations are involved: (1) non-interference with the present and proposed facilities of the CBC, and (2) that high-power transmission facilities, on both long- and short-wave bands, are reserved for use by the CBC. Within these limitations, it is the policy of the Board to serve community interests by giving every practical encouragement and assistance to local stations.

The CBC operates three networks: the Trans-Canada and Dominion networks, serving English-language audiences from the Atlantic to the Pacific, and the French network, serving French-language listeners in Quebec. The Trans-Canada network is made up of 24 basic stations: 11 CBC-owned and 13 privately owned. There are 15 affiliated stations, four of which are CBC-owned Newfoundland stations. The Dominion network consists of 31 basic stations of which 30 are privately owned. Seven affiliated privately owned stations receive Dominion network service. The French network has three basic CBC-owned stations, and 12 privately owned stations.

In 1952 the CBC had 19 stations, 8 of which had 50,000-watt transmitters. During 1950, CBC increased the power of CBM Montreal from 5,000 to 50,000 watts, and of CBR Vancouver from 5,000 to 10,000 watts; and a new 10,000-watt station CBE was established at Windsor, Ont. On Jan. 25, 1952, CBR's frequency was changed from 1,130 to 690 and its call letters to CBU. In order to present programs at suitable times and to give expression to varying interests in the six regions, CBC maintains regional offices and production facilities at St. John's, Nfld.; Halifax, N.S.; Chicoutimi, Quebec City and Montreal, Que.; Ottawa and Toronto, Ont.; Winnipeg, Man.; Edmonton, Alta.; and Vancouver, B.C.

6.—Broadcasting Stations of CBC Networks, as at Apr. 1, 1952

NOTE.—The stations marked with an asterisk (*) are CBC-owned.

Station Location	Frequency	Power	Station Location	Frequency	Power
	kc.	watts		kc.	watts
Trans-Canada Basic Network—			Trans-Canada Affiliated—concl.		
CBI* Sydney.....	1,570	1,000	CHLO St. Thomas.....	680	1,000
CBH* Halifax.....	1,330	100	CHOK Sarnia.....	1,070	1
CBA* Sackville.....	1,070	50,000	CFAR Flin Flon.....	690	1,000
CHSJ Saint John.....	1,150	5,000	CFGP Grande Prairie.....	1,050	1,000
CFNB Fredericton.....	550	5,000	CKLN Nelson.....	1,240	250
CBM* Montreal.....	940	50,000	CKPG Prince George.....	550	250
CBQ* Ottawa.....	910	1,000	CFPR Prince Rupert.....	1,240	250
CKWS Kingston.....	960	5,000	CJDC Dawson Creek.....	1,350	1,000
CBL* Toronto.....	740	50,000			
CFCH North Bay.....	600	1,000			
CJKL Kirkland Lake.....	560	5,000	Dominion Basic Network—		
CKGB Timmins.....	680	5,000	CJCB Sydney.....	1,270	1
CKSO Sudbury.....	790	5,000	CHNS Halifax.....	960	5,000
CBE* Windsor.....	1,550	10,000	CJFX Antigonish.....	580	5,000
CJIC Sault Ste. Marie.....	1,490	250	CJLS Yarmouth.....	1,340	250
CKPR Fort William.....	580	1,000	CFCY Charlottetown.....	630	1
CBW* Winnipeg.....	990	50,000	CKCW Moncton.....	1,220	5,000
CBK* Watrous.....	540	50,000	CFBC Saint John.....	930	5,000
CBX* Edmonton.....	1,010	50,000	CKNB Campbellton.....	950	1,000
CJOC Lethbridge.....	1,220	5,000	CKTS Sherbrooke.....	1,240	250
CFJC Kamloops.....	910	1,000	CFCE Montreal.....	600	5,000
CKOV Kelowna.....	630	1,000	CKOY Ottawa.....	1,310	1
CJAT Trail.....	610	1,000	CHOV Pembroke.....	1,350	1,000
CBU* Vancouver.....	690	10,000	CFJR Brockville.....	1,450	250
			CHEX Peterborough.....	1,430	1,000
Trans-Canada Affiliated—			CJBC* Toronto.....	860	50,000
CBN* St. John's.....	640	10,000	CFPL London.....	950	5,000
CBY* Corner Brook.....	790	1,000	CFCO Chatham.....	630	1,000
CBG* Gander.....	1,450	250	CFPA Port Arthur.....	1,230	250
CBT* Grand Falls.....	1,350	1,000	CJRL Kenora.....	1,220	1,000
CKBW Bridgewater.....	1,000	1,000	CKRC Winnipeg.....	630	5,000
CJNT Quebec.....	1,340	250	CKX Brandon.....	1,150	1,000
CKOC Hamilton.....	1,150	5,000	CJGX Yorkton.....	940	1,000
			CKBI Prince Albert.....	900	5,000

For footnote, see end of table.

6.—Broadcasting Stations of CBC Networks, as at Apr. 1, 1952—concluded

Station Location			Station Location		
Frequency			Frequency		
kc.			kc.		
Power			Power		
watts			watts		
Dominion Basic Network—concl.			French Basic Network—		
CFQC	Saskatoon.....	600 5,000	CBJ*	Chicoutimi.....	1,580 10,000
CHAB	Moose Jaw.....	800 5,000	CBV*	Quebec.....	980 1,000
CKRM	Regina.....	980 5,000	CBF*	Montreal.....	690 50,000
CFRN	Edmonton.....	1,260 5,000			
CFCN	Calgary.....	1,060 10,000	French Affiliated—		
CHWK	Chilliwack.....	1,270 1,000	CHNC	New Carlisle.....	610 5,000
CJOR	Vancouver.....	600 5,000	CJEM	Edmundston.....	1,380 1,000
CJVI	Victoria.....	900 1,000	CJBR	Rimouski.....	900 5,000
			CHLT	Sherbrooke.....	900 1,000
			CHGB	Ste. Anne de la Poca- tière.....	1,350 2
Dominion Affiliated—			CKCH	Hull.....	970 1,000
CHML	Hamilton.....	900 5,000	CJPF	Rivière-du-Loup.....	1,400 250
CKTB	St. Catharines.....	620 1,000	CKVD	Val d'Or.....	1,230 250
CFOR	Orillia.....	1,570 1,000	CHAD	Amos.....	1,340 250
CHNO	Sudbury.....	1,440 1,000	CKRN	Rouyn.....	1,400 250
CHAT	Medicine Hat.....	1,270 1,000	CKLS	La Sarre.....	1,240 250
CJIB	Vernon.....	940 1,000	CKLD	Thetford Mines.....	1,230 250
CKFI	Fort Frances.....	800 1,000			

¹ 5,000 watts during daytime; 1,000 watts at night.

² 1,000 watts during daytime; 250 watts at night.

CBC International Service (Shortwave).—The International Service, inaugurated on Feb. 25, 1945, is operated by the Canadian Broadcasting Corporation on behalf of the Canadian Government. Its aim is to tell the people of other countries about Canadian life and thought, and to help unify the western world in defence of freedom.

The International Service, now in its eighth year of operation, has grown to meet the requirements of Canada's expanding interest and influence abroad. The two 50,000-watt transmitters at Sackville, N.B., are linked by approximately 600 miles of land lines with studio and program headquarters in the Radio Canada Building, Montreal, Que., from which programs are broadcast daily in English, French, German, Czech, Slovak, Dutch, Swedish, Norwegian, Danish, Italian, Spanish, Portuguese, Russian and Finnish. With technical facilities transmitting a signal unequalled by any other from the North American continent, the International Service has succeeded in reaching increasingly large audiences in Europe, Central and South America, the Caribbean and the South Pacific area.

Almost 200,000 letters have been received from listeners in all parts of the world attesting to the strength of the International Service signal and to a wide interest in Canada and Canadian programs. Many listeners request specific information on a variety of topics ranging from trade conditions to social and educational matters. These inquiries are answered by the language sections or are referred to the Government Departments directly concerned. Reception reports are also verified.

In addition to broadcasting Canadian programs approximately 14 hours daily, the International Service has developed a liaison with broadcasting organizations in other countries so that an increasing number of programs are relayed over national

networks, thus reaching an even wider audience. An important function of the Service is the coverage of United Nations activities by means of reports and interviews by the CBC correspondent at UN headquarters and foreign-language correspondents. The International Service also places its transmitters at the disposal of the United Nations Radio Division for the broadcasting of its official reports and commentaries to Europe and to the South Pacific.

Monthly illustrated program booklets designed for audiences in Europe and in Latin America are sent to listeners, upon request, by the International Service. These booklets contain broadcast schedules, program details in various languages, and frequency information.

Domestic Program Service.—During the year ended Mar. 31, 1952, 73,494 programs representing 23,933 hours of broadcasting were presented over the CBC Trans-Canada, Dominion and French networks. Of the total broadcasting hours, 76.3 p.c. were devoted to non-commercial and public-service programs, and the remainder to commercial presentations. Of the total broadcasting hours in 1951-52, 67.1 p.c. was scheduled on the Trans-Canada network; the Dominion network released more than 10.1 p.c. and the remainder was released on the French network.

The CBC originated and produced 81.7 p.c. of its network broadcasts. Of the remainder, 2.4 p.c. came from private stations and 15.9 p.c. were exchange programs from the United States and the British Broadcasting Corporation. Various categories of light music made up the greatest number of broadcast hours, followed in order by drama, news, talks, semi-classical music, variety, agriculture programs, educational broadcasts, religious periods, and programs devoted to the interests of women, sports enthusiasts and children. Table 7 shows the proportion of time devoted to sustaining programs as compared with commercial programs and analyses those made up of music as compared with the spoken word.

A program highlight during 1951 was provided by the visit to Canada of Their Royal Highnesses Princess Elizabeth and the Duke of Edinburgh. Throughout the three weeks of the Royal Tour the CBC networks carried eye-witness accounts of events from 27 cities and towns across Canada. Nearly 300 program and technical-staff members, using more than three tons of equipment, travelled thousands of miles in those weeks to bring word pictures of the Royal Couple and the places they visited. A climax of the tour followed Princess Elizabeth's farewell address from Newfoundland when choirs organized by the CBC at Vancouver, Winnipeg, Toronto, Montreal, Halifax and St. John's, linked by more than 10,000 miles of national network lines, joined in singing *Auld Lang Syne*.

In May 1951, North America's most modern radio centre, the CBC's Radio Canada Building at Montreal, Que., was opened officially. From the building's 26 studios the CBC broadcasts more than 6,000 hours of programs a year to listeners in Canada, and speaks to the world in 14 languages through the facilities of the International Service. In its first year of service the Radio Canada Building played host to more than 60,000 visitors from Canada, the United States and many other parts of the world.

7.—Classification of CBC Programs, Year Ended Mar. 31, 1951

NOTE.—Dashes in this table indicate that no programs were reported under these particular items.

Class of Program	Sustaining			Commercial		
	Programs	Time	P.C. of Total Hours	Programs	Time	P.C. of Total Hours
Musical	No.	hrs. mins.		No.	hrs. mins.	
Opera.....	21	63-30	0-34	17	39-00	0-75
Symphony.....	108	119-05	0-64	10	15-15	0-29
Sacred.....	404	158-00	0-85	—	—	—
Classical.....	2,537	1,666-15	8-93	72	72-00	1-38
Semi-classical.....	2,479	1,001-05	5-36	8	4-30	0-08
Variety.....	452	220-55	1-18	2,344	1,090-05	20-94
Light.....	13,403	5,069-20	27-17	1,430	450-05	8-65
Dance.....	2,704	1,141-40	6-12	264	46-40	0-90
Old-time.....	1,289	417-10	2-24	378	126-30	2-43
Band.....	177	70-30	0-38	—	—	—
Totals, Musical.....	23,574	9,927-30	53-21	4,523	1,844-05	35-42
Oral						
Drama.....	1,799	875-10	4-69	8,997	2,514-45	48-31
Prose and poetry.....	123	51-45	0-28	—	—	—
Talks—informative.....	6,043	1,805-25	9-68	1,149	342-10	6-57
Educational.....	1,470	519-20	2-78	—	—	—
News commentary.....	954	245-00	1-31	—	—	—
News events.....	7	3-00	0-02	18	22-20	0-43
News résumés.....	13,557	2,180-05	11-69	424	162-45	3-13
Agriculture.....	2,514	953-05	5-11	—	—	—
Sports events.....	126	63-30	0-34	126	69-25	1-33
Sports résumés.....	1,331	283-40	1-52	157	99-45	1-92
Women's.....	1,796	347-45	1-86	578	150-30	2-89
Children's.....	2,419	730-25	3-92	—	—	—
Religious.....	2,546	670-45	3-59	—	—	—
Totals, Oral.....	34,685	8,728-55	46-79	11,449	3,361-40	64-58
Grand Totals.....	58,259	18,656-25	100-00	15,972	5,205-45	100-00
Live talent.....	34,769	9,589-50	51-40	10,127	3,454-40	66-36
Recording.....	15,807	6,222-40	33-36	956	216-05	4-15
Delayed.....	7,683	2,843-55	15-24	4,889	1,535-00	29-49

Finances of the CBC.—For the year ended Mar. 31, 1952, the Corporation showed an operating surplus of \$3,322,555 after providing for depreciation and obsolescence and preliminary expenses in connection with the development of television amounting to \$369,225.

This surplus was made possible through the statutory grant amounting to \$6,250,000 which will continue for an additional four years, as provided by Parliament.

Licence fees increased by \$269,326 owing principally to the issue of an additional 101,509 receiving licences.

Additions to the Sound Broadcasting Service facilities amounted to \$588,120. These include the purchase of the Pigott Building, corner Young and Portage Avenues, Winnipeg; outlays for studios at St. John's, Nfld., and Toronto, Ont., and for the new transmitter at Vancouver, B.C.

Capital outlays of \$1,879,693 were made for television production centres and transmitters at Montreal, Que., and Toronto, Ont.

A short term loan of \$650,000, negotiated in 1950-51 to finance the Corporation's deficit, was repaid in 1951-52. In addition, a second loan amounting to \$1,500,000 for the development of the Television Service was negotiated during the year.

All International Service capital and operating expenditure are recoverable from the Government of Canada. This expenditure is not considered chargeable to the Canadian Broadcasting Corporation because the statutory grant and the licence fees collected are used only to serve listeners in Canada.

8.—Income and Expenditure of the CBC, Years Ended Mar. 31, 1950-52

Item	1950		1951		1952	
	\$	p.c.	\$	p.c.	\$	p.c.
Income						
Statutory grant.....	—	—	—	—	6,250,000	37.52
Licence fees.....	5,481,488	57.84	5,571,991	56.28	5,841,318	35.06
Commercial.....	2,366,401	24.97	2,463,345	24.88	2,456,432	14.75
Miscellaneous.....	73,465	0.77	187,151	1.89	173,004	1.04
International Service.....	1,556,157	16.42	1,677,584	16.95	1,937,557	11.63
Totals, Net Income.....	9,477,511	100.00	9,900,071	100.00	16,658,311	100.00
Expenditure						
Programs.....	4,261,153	43.83	4,843,451	43.35	5,774,141	43.29
Engineering.....	1,678,660	17.27	1,958,130	17.53	2,193,015	16.44
Station networks.....	1,094,540	11.26	1,161,252	10.40	1,270,322	9.53
Administration.....	417,512	4.30	540,981	4.84	628,645	4.72
Press and information.....	227,734	2.34	271,476	2.43	321,023	2.41
Commercial.....	200,241	2.06	208,709	1.87	243,916	1.83
Interest on loans.....	94,802	0.98	230,627	2.06	243,353	1.82
Depreciation.....	211,149	2.17	235,848	2.11	447,403	3.36
Television (preliminary expenses).....	55,571	0.57	122,780	1.10	369,225	2.77
International Service.....	1,479,896	15.22	1,598,691	14.31	1,844,713	13.83
Totals, Expenditure.....	9,721,258	100.00	11,171,945	100.00	13,335,756	100.00
Operating deficit or surplus.....	-243,747	—	-1,271,874	—	3,322,555	—

Section 4.—Privately Owned Radio Broadcasting Stations*

Development.—Privately owned (non-government) broadcasting stations began operations in the early 1920's, about 12 years before any other broadcasting service was available, and since then have offered regular broadcasting service to communities in every part of Canada. In 1951, these stations numbered 135 with a total wattage of 378,600 daytime and 349,850 night-time. Operating mainly in conjunction with AM stations are 31 FM stations, with a combined power of 50,647 watts. There are, in addition, eight short-wave stations with a combined power of 6,685 watts.

The privately owned stations serve, primarily, the localities in which they are situated, the community served varying with circumstances. Many such stations are located in very small urban centres where they serve not only the local population but also a larger population scattered throughout the surrounding rural areas. Others may serve a metropolitan area and cities adjacent to it, in addition to the rural audiences and smaller centres lying between or beyond the urban areas.

These privately owned stations have a combined capital investment estimated at about \$26,938,282, employ more than 3,700 persons and disburse in salaries and wages an estimated \$8,500,000 annually. Revenue is obtained entirely from commercial advertising and they receive no part of the licence fee charged against

* Revised by T. J. Allard, General Manager, Canadian Association of Broadcasters, Ottawa.

operators of receiving sets. The privately owned stations are required to pay transmitter licence fees to the Canadian Broadcasting Corporation; these totalled approximately \$159,300 for the fiscal year ended Mar. 31, 1951.

Interest in broadcasting at political, commercial and legal levels has increased recently as it has become more generally recognized that broadcasting is a new device for publicity and has grown to be a basic means of mass communication in North America. As a result, many representations have been made and are continuing to be made with increasing frequency and vigour to have broadcasting in Canada operate within the general framework of established law as is now the case with all other forms of publication. A complete and interesting review of this development may be found in the Minutes of the 1951 Special Committee on Radio Broadcasting, Minute Book No. 5 dated Nov. 28, 1951.

According to figures submitted by the Department of Transport to the Massey Commission in April 1950, the privately owned stations showed a net profit of 9 p.c. in 1948, figured as a percentage of capital, as against 7 p.c. in 1947 and 8 p.c. in 1946. The 1948 profit, as a percentage of operating revenue, was 10 p.c., as against 8 p.c. in 1947 and 10 p.c. in 1946. These figures are based on reports required by the Department of Transport from 109 stations in 1948, 108 stations in 1947, and 88 stations in 1946. Thus, the average net profit per station was \$12,516 in 1948, \$8,597 in 1947, and \$11,228 in 1946. Between 1947 and 1948 the privately owned stations increased their average gross revenue per station by 17 p.c. and the CBC increased its comparable revenue by 20 p.c. The average private station gross return in 1948 was \$130,909 and the CBC average per station gross return for the same year, from commercial revenue only, was \$147,808. Of the 109 stations reporting in 1948, 79 showed an aggregate surplus and 30 an aggregate loss. While no official compilations have been made available since that time, unofficial estimates indicate that the 1951 and 1952 position is approximately the same. In 1952, an order of the Copyright Appeal Board increased the copyright fees payable by the privately owned broadcasting stations from \$152,000 a year to approximately \$350,000 a year.

Administration.—The independent stations operate under the Canadian Broadcasting Act, which is administered by the Canadian Broadcasting Corporation, and under regulations made by the CBC, in addition to the Radio Act and specifications laid down by the Department of Transport. Annual statements of "Proof of Performance", showing that public service obligations have been fulfilled, together with financial statements, must be filed with the licensing authority. Advance copies of programs scheduled must also be filed weekly with the CBC and a program log within seven days following operations. Advertising content of program is limited to 10 p.c. of program time. Sources from which broadcasting stations obtain news must be approved in advance in writing by the Canadian Broadcasting Corporation.

Broadcasting Facilities.—Licences of the privately owned stations are granted by the Federal Government upon recommendation of the Board of Governors of the Canadian Broadcasting Corporation and are valid (unless cancelled or revoked) for a period of three years. Sale or ownership transfer of any station must be approved by the Federal Government.

The independent stations are limited to 5,000 watts. In 1948, three privately owned stations (CKAC Montreal, CFRB Toronto and CKLW Windsor) were authorized to operate on 50,000 watts and the latter two were so operating in 1952.

The majority continue to serve on 1,000 to 5,000 watts on the shared channels, the CBC stations occupying the clear channels allocated to Canada and operating mainly on 50,000 watts.

Network Operations.—Network operation in Canada (the process of having two or more stations broadcasting the same program at the same time) is at present restricted to the CBC by its own regulations. The CBC also has sole right, except in the case of four stations, to bring commercial and other network programs in from the United States. Some privately owned stations do, however, serve as outlets, either basic or supplementary, for CBC network programs. All stations must carry CBC or other programs when required by the CBC to do so. Food, drug and medicine continuity used on Canadian broadcasting stations must be approved in advance of broadcast by the Department of National Health and Welfare.

Television.—Government policy concerning citizen applications for television licences was undergoing revision as this Chapter went to press.

PART VIII.—THE POST OFFICE

The Canada Post Office Department was created at the time of Confederation in 1867, by the Canada Post Office Act to superintend and manage the postal service of Canada under the direction of a Postmaster General. For almost a century prior to Confederation, postal services in the Canadian provinces had been controlled by the British Postmaster General and administered by his deputies. Under the French régime a courier service had been organized as early as 1703 between Quebec, Three Rivers and Montreal, while in 1734 a post road was constructed over the same route and post houses, complete with post horses and vehicles, were established for the use of travellers.

Functions.—The basic task of the Canadian Postal Service is the handling and transmission of postal matter—letters, parcels, newspapers, magazines, etc.—and in discharging this duty it maintains a wide variety of services—post offices and air, railway, land and water transportation facilities.

This basic task involves many associated functions which include the sale of postage stamps and other articles of postage; the furnishing of information to the public respecting postage rates and other postal matters; the registration of letters and other articles of mail; the insuring of parcels; the acceptance of C.O.D. articles for mail and dispatch; the sorting, making up and dispatching of ordinary and registered mail to other offices; the sorting and delivery of incoming mail of all kinds; the transaction of money-order and Post Office Savings Bank business.

All functions of the Postal Service, as far as the public is concerned, are centred in the post offices, of which 12,305 were in operation at Mar. 31, 1952, as against 12,390 at the same date in 1951. Postage paid in 1951-52 by means of postage stamps amounted to \$65,093,099 (\$57,178,573 in 1951). Post office money orders are issued for any amount up to and including \$100 at more than 7,000 post offices, for payment in Canada or in almost every country in the world. Orders payable in Canada only for amounts under \$16 are issued at more than 4,000 additional post offices. Post Office Savings Banks are in operation in all parts of the country and on Mar. 31, 1952, had total deposits of \$38,031,232, an increase of \$369,312 over the \$37,661,920 deposited in 1951.

Post offices are established for the transaction of all kinds of postal business at places where the population warrants. The post office is a complete entity in rural districts and smaller urban centres. In the larger towns and cities there is a main post office and, if size of population calls for extra services, postal stations and sub-post offices are operated. Letter-carrier delivery is given in 126 cities and towns by about 5,000 uniformed letter carriers.

Postal stations are maintained on the same lines as the main post offices and perform full postal business, including general-delivery service and a post-office lock-box delivery as well as letter-carrier delivery service, accommodating the surrounding district.

Because of its widespread facilities, it has been found expedient for the Post Office to assist other Government Departments in the performance of certain tasks which include the sale of unemployment insurance stamps, the collection of Government annuity payments, the sale of radio licences, the distribution of income tax forms, Civil Service application forms and the display of Government posters.

Organization.—The Canada Post Office is divided into two parts: the Operating Service and the Headquarters at Ottawa. The Operating Service is organized into five regions each under a Regional Director, who is the field representative of the Deputy Postmaster General. There are four Headquarters Branches, viz., Administration, Operations, Communications and Financial, each under a Director.

Operating and secretarial features in the operating field affecting the post offices and local mail services in urban centres are taken care of by the local Postmaster. District office functions relating to services in the district, and all inspections and investigations, are under District Post Office Inspectors situated at strategic centres across the country.

Postal service is provided in Canada from Newfoundland to the west coast of Vancouver Island, and from Pelee Island, Ont. (the most southerly point of Canada), to settlements and missions far within the Arctic.

Canada's air-mail system provides several flights daily from east to west and constitutes a great air artery from St. John's, Nfld., to Victoria, B.C., intersected by branch lines and connecting lines radiating to every quarter and linking up with the United States air-mail system. Since July 1, 1948, all first-class domestic mail up to and including one ounce in weight has been carried by air between one Canadian point and another, whenever delivery can thus be expedited. Air-stage service provides the sole means of communication with the outside for many areas in the hinterland. There were approximately 24,000 miles of air-mail and air-stage routes in Canada in 1952 as compared with 22,000 miles in 1951.

The principal means of mail transportation is the railway-mail service, which operates along about 40,000 miles of track and, in 1952, covered over 47,000,000 of track mileage (exceeding 57,000,000 in 1951). The railway mail service employed a staff of 1,343 mail clerks in 1952 (1,381 in 1951). This staff prepares the mails for prompt delivery and dispatch while *en route* in the railway mail cars. Like its air-mail service, Canada's railway mail service is one of the most extensive in the world.

The rural mail delivery organization provides direct postal facilities to residents in the rural sections of the country: approximately 5,200 rural mail routes were in operation in 1952, involving about 120,750 route miles and serving 397,084 rural mail boxes (384,906 in 1951). Rural mail routes are generally circular in pattern

and average about 23 miles in length. A development during 1950-51 was a system of rural mail inspections carried out by Supervisory Postmasters. About 4,700 side services were in operation in 1952, as compared to 4,500 in 1951, to transport mail between post offices, railway stations, steamer wharves and air ports, while 3,050 stage services operated to convey mail to and from post offices not located on railway lines. In 1952 there were approximately 500 city mail services, as against 700 in 1951, transporting mails to and from post offices, postal stations and sub-post offices, collecting mails from street letter-boxes and delivering parcel post. In all, about 13,450 land mail service couriers are employed and travel in the neighbourhood of 50,000,000 miles annually. Land mail services are performed under a contract system, the contracts being awarded to the person submitting the lowest tender and competent to provide all the requisite equipment.

In 1952, the Canadian postal service delivered an estimated 3,000,000,000 items of mail—a decrease from the 3,012,000,000 items delivered in the previous year. The service makes use of such mechanical handling devices as conveyers, chutes, sorting machines, stamp cancelling machines, etc., in its larger offices.

The increase in postal business is one of the impressive features of Canada's economic development during the last 10 years. From \$55,477,159 in 1942, gross revenue has increased year by year to \$122,266,675 by Mar. 31, 1952—an all-time high.

Section 1.—Post Office Statistics

Tables 1, 2 and 3 give the numbers of post offices in operation together with revenue and expenditure for the past few years.

1.—Post Offices in Operation, by Provinces, as at Mar. 31, 1949-52

Province or Territory	1949	1950	1951	1952
	No.	No.	No.	No.
Newfoundland.....	550	553	573	592
Prince Edward Island.....	105	105	105	105
Nova Scotia.....	1,362	1,315	1,278	1,245
New Brunswick.....	922	909	874	837
Quebec.....	2,567	2,560	2,545	2,530
Ontario.....	2,590	2,586	2,602	2,598
Manitoba.....	806	809	823	823
Saskatchewan.....	1,418	1,404	1,407	1,397
Alberta.....	1,186	1,184	1,179	1,179
British Columbia.....	933	952	958	955
Yukon Territory.....	15	15	15	13
Northwest Territories.....	26	26	31	31
Canada.....	12,480	12,418	12,390	12,305

2.—Revenue and Expenditure of the Post Office Department, Years Ended Mar. 31, 1943-52

NOTE.—Figures for 1867-1942 will be found in the corresponding tables of previous Year Books, beginning with the 1911 edition.

Year	Gross Revenue	Net Revenue ¹	Expenditure ²	Surplus (+) or Deficit (—)
	\$	\$	\$	\$
1943.....	59,175,138	48,868,762	44,741,987	+4,126,775
1944.....	73,004,399	61,070,919	48,485,009	+12,585,910
1945.....	79,533,903	66,071,815	54,629,281	+11,442,534
1946.....	83,763,007	68,635,559	57,729,646	+10,905,913
1947.....	86,400,951	72,986,624	64,213,050	+8,773,574
1948.....	91,613,618	77,770,967	67,943,476	+9,827,491
1949.....	95,957,469	80,618,401	77,642,621	+2,975,781
1950 ³	101,277,435	84,528,655	82,639,741	+1,888,914
1951 ³	105,545,456	90,454,678	91,781,466	—1,326,788
1952 ³	122,266,675	104,622,208	97,973,263	+6,648,945

¹ Gross revenue less commissions and allowances to postmasters and other smaller items. Includes rental of service staff and staff post offices.

² Ex-

³ Figures for Newfoundland included.

3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, for the Years Ended Mar. 31, 1951 and 1952

NOTE.—The post offices shown in this table do not include those established at military camps. Money order commissions are not included in gross postal revenue. Provincial totals of postal revenue include post offices not separately listed.

Province and Post Office	1951	1952	Province and Post Office	1951	1952
	\$	\$		\$	\$
Newfoundland			Nova Scotia—concluded		
Buchans.....	¹	10,045	Halifax.....	1,642,832	1,876,993
Corner Brook.....	54,964	66,231	Hantsport.....	¹	10,397
Gander.....	29,306	28,999	Inverness.....	¹	10,710
Goose Airport.....	¹	16,761	Kentville.....	53,142	60,636
Grand Falls.....	20,225	21,419	Kingston.....	12,461	16,844
St. John's.....	473,976	549,975	Liverpool.....	26,145	31,944
St. John's East.....	78,072	²	Lunenburg.....	21,688	25,406
St. John's Harvey Road..	26,504	²	Middleton.....	14,476	22,887
Totals, Newfoundland..	945,478	1,109,669	New Glasgow.....	79,705	94,267
P. E. Island			New Waterford.....	18,115	21,700
Charlottetown.....	180,968	204,871	North Sydney.....	30,417	34,788
Montague.....	¹	11,075	Parrsboro.....	10,886	12,711
Summerside.....	55,512	67,567	Pictou.....	22,799	25,483
Totals, P. E. Island.....	357,496	409,447	Shelburne.....	14,050	16,479
Nova Scotia			Springhill.....	20,914	23,785
Amherst.....	65,352	74,560	Stellarton.....	21,644	24,147
Annapolis Royal.....	12,155	13,574	Sydney.....	196,240	215,033
Antigonish.....	40,689	47,177	Sydney Mines.....	16,031	19,245
Armdale.....	15,700	19,783	Tyro.....	121,246	135,951
Bedford.....	¹	11,125	Westville.....	¹	11,456
Berwick.....	¹	12,056	Windsor.....	31,560	35,393
Bridgetown.....	15,040	16,703	Wolfville.....	23,715	26,937
Bridgewater.....	37,537	43,144	Yarmouth.....	57,446	66,107
Chester.....	¹	10,595	Totals, Nova Scotia.....	3,421,831	3,904,511
Cornwallis.....	¹	14,463	New Brunswick		
Digby.....	25,845	30,930	Bathurst.....	37,686	45,153
Glace Bay.....	51,463	59,661	Campbellton.....	49,683	56,918
			Chatham.....	25,076	32,306
			Dalhousie.....	18,301	22,049
			Edmundston.....	39,106	47,064
			Fredericton.....	237,374	290,145

For footnotes, see end of table, p. 858.

3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, for the Years Ended Mar. 31, 1951 and 1952—continued

Province and Post Office	1951	1952	Province and Post Office	1951	1952
New Brunswick—concl.	\$	\$	Quebec—continued	\$	\$
Grand Falls.....	16,799	20,538	Lévis.....	109,046	126,850
Hartland.....	10,487	11,637	Loretteville.....	11,987	13,404
Minto.....	1	10,088	Louiseville.....	14,645	15,900
Moncton.....	1,129,473	1,225,556	Magog.....	38,373	44,067
Newcastle.....	28,536	38,197	Malartic.....	21,079	22,592
Perth.....	1	10,488	Maniwaki.....	18,295	22,158
Plaster Rock.....	1	10,529	Marieville.....	11,489	13,795
Saint John.....	598,145	679,709	Matane.....	30,968	37,316
St. Andrews.....	18,666	21,984	Mont Joli.....	24,569	32,922
St. George.....	1	10,054	Mont Laurier.....	18,870	24,190
St. Stephen.....	35,110	36,779	Montmagny.....	29,776	38,780
Sackville.....	39,602	43,759	Montreal.....	13,226,374	15,722,772
Shediac.....	1	10,677	Neuville.....	13,273	18,816
Sussex.....	26,851	31,230	New Carlisle.....	11,073	13,097
Woodstock.....	37,550	42,986	Nicolet.....	21,799	29,274
Totals, New Brunswick	2,909,170	3,283,426	Noranda.....	56,094	65,074
Quebec			Parent.....	1	12,253
Acton Vale.....	1	11,762	Plessisville.....	23,402	20,598
Amos.....	33,771	40,518	Plessisville Station.....	1	14,188
Amqui.....	17,059	19,770	Port Alfred.....	11,040	14,403
Arvida.....	34,073	38,931	Princeville.....	1	10,218
Asbestos.....	24,121	27,727	Quebec.....	2,196,381	2,482,655
Aylmer East.....	1	11,274	Rawdon.....	1	10,441
Bagotville.....	14,019	16,696	Richmond.....	16,307	19,134
Baie Comeau.....	24,071	30,437	Rigaud.....	10,042	10,726
Baie St. Paul.....	10,508	11,653	Rimouski.....	87,856	107,210
Basilique Ste. Anne.....	28,753	50,850	Rivière-du-Loup.....	14,558	51,483
Beauceville East.....	12,509	13,831	Rivière-du-Loup Centre.....	10,067	24
Beauharnois.....	24,022	26,845	Rivière-du-Loup Station.....	14,179	4
Bedford.....	14,888	18,766	Roberval.....	23,731	26,494
Berthierville.....	14,369	16,467	Rock Island.....	24,722	31,816
Bourlamaque.....	13,770	15,694	Rouyn.....	56,179	64,461
Brownsburg.....	1	10,977	Ste. Agathe-des-Monts.....	35,350	37,615
Buchingham.....	22,133	23,747	Ste. Anne de Beaupré.....	20,070	20,736
Cap de la Madeleine.....	49,454	72,123	Ste. Anne-de-Bellevue.....	16,703	19,267
Chambly.....	1	12,351	Ste. Anne-de-la-Pocatière.....	14,090	16,844
Chandler.....	1	15,527	St. Eustache.....	10,091	13,431
Chicoutimi.....	130,214	162,501	St. Félix.....	13,714	16,762
Coaticook.....	23,302	26,104	St. Gabriel-de-Brandon.....	1	11,081
Cowansville.....	26,247	30,491	St. Hyacinthe.....	111,885	129,764
Danville.....	11,026	12,951	St. Jean.....	87,634	117,170
Dolbeau.....	23,371	26,647	St. Jérôme.....	59,497	69,530
Donnacona.....	11,782	13,644	St. Joseph-d'Alma.....	22,746	34,877
Dorion-Vaudreuil.....	1	13,510	St. Joseph-de-Beauce.....	11,491	12,812
Drummondville.....	105,458	131,248	St. Joseph-de-Sorel.....	1	10,922
East Angus.....	11,600	13,362	St. Jovite.....	1	10,406
Farnham.....	22,032	28,881	Ste. Marie-Beauce.....	15,385	18,151
Gardenvale.....	60,262	49,181	St. Pascal.....	10,726	12,239
Gaspé.....	18,297	22,111	St. Raymond.....	11,139	13,536
Gatineau.....	17,586	20,710	Ste. Rose.....	10,202	12,162
Granby.....	118,659	141,550	Ste. Thérèse-de-Blainville.....	27,289	33,287
Grand Mère.....	29,716	44,810	St. Tite.....	1	10,985
Hull.....	126,016	139,794	St. Vincent-de-Paul.....	1	10,369
Huntingdon.....	20,326	23,191	St. Zacharie.....	1	10,975
Iberville.....	14,425	17,374	Sanmour.....	1	10,822
Joliette.....	70,990	84,146	Senneterre.....	1	14,810
Jonquière-Kenogami.....	65,397	75,001	Seven Islands.....	1	25,293
Knowlton.....	1	11,139	Shawinigan Falls.....	96,141	110,975
Lachute.....	26,151	29,476	Shawville.....	1	12,061
Lachute Mills.....	10,162	11,556	Sherbrooke.....	338,679	405,340
Lac Mégantic.....	23,900	28,761	Sorel.....	44,406	59,606
Lacolle.....	1	11,220	Sutton.....	10,457	11,684
La Malbaie.....	14,793	17,247	Terrebonne.....	11,517	14,218
Laprairie.....	1	10,982	Thetford Mines.....	61,908	72,346
La Sarre.....	21,505	27,244	Three Rivers.....	214,288	250,730
L'Assomption.....	11,972	12,577	Timiskaming Station.....	14,630	15,839
La Tuque.....	35,454	38,446	Trois-Pistoles.....	15,072	16,781
Lennoxville.....	23,143	27,195	Val-d'Or.....	50,723	59,207
			Valleyfield.....	63,228	77,362
			Victoriaville.....	63,828	72,964
			Ville Marie.....	1	10,878
			Ville St. Georges.....	20,408	26,603

For footnotes, see end of table, p. 858.

3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, for the Years Ended Mar. 31, 1951 and 1952—continued

Province and Post Office	1951	1952	Province and Post Office	1951	1952
Quebec—concluded	\$	\$	Ontario—continued	\$	\$
Warwick.....	1	11,349	Fort Frances.....	48,820	55,967
Waterloo.....	22,170	26,995	Fort William.....	253,569	286,423
Windsor.....	1	12,685	Freeman.....	11,590	10,652 ^b
Totals, Quebec.....	21,790,583	25,715,448	Calt.....	151,909	180,650
Ontario			Gananogue.....	38,409	42,444
Acton.....	17,316	21,063	Georgetown.....	52,972	69,912
Agincourt.....	1	112,539	Geraldton.....	22,205	24,156
Ajax.....	1	24,756	Goderich.....	33,526	37,527
Alexandria.....	13,823	16,153	Gore Bay.....	1	10,303
Alliston.....	12,918	15,131	Gravenhurst.....	25,471	27,885
Almonte.....	14,070	15,871	Grimsbv.....	25,832	31,512
Amherstburg.....	24,885	29,290	Guelph.....	238,559	268,222
Arnprior.....	28,660	33,007	Hagersville.....	16,013	18,886
Atikokan.....	1	14,904	Haliburton.....	11,467	12,409
Aurora.....	28,692	33,315	Hamilton.....	1,703,467	2,044,761
Aylmer West.....	30,374	40,743	Hanover.....	24,204	29,921
Bancroft.....	12,682	15,179	Harriston.....	12,086	13,223
Barrie.....	106,078	121,731	Harrow.....	15,088	18,254
Batawa.....	15,201	17,163	Hawkesbury.....	24,185	27,950
Beamsville.....	16,397	19,250	Hearst.....	20,038	24,698
Beaverton.....	1	10,204	Hespeler.....	21,802	24,867
Belleville.....	185,069	215,451	Hornepayne.....	1	10,575
Billings Bridge (Ottawa).....	1	12,576	Huntsville.....	40,411	45,101
Blenheim.....	21,472	25,654	Ingersoll.....	45,258	49,825
Blind River.....	13,758	15,658	Iroquois.....	1	10,704
Bowmanville.....	32,784	40,567	Iroquois Falls.....	12,212	13,887
Bracebridge.....	30,521	34,729	Kapuskasing.....	34,851	42,656
Bradford.....	12,866	15,300	Kemptville.....	14,073	16,385
Brampton.....	73,535	90,658	Kenora.....	65,882	74,071
Brantford.....	359,904	417,440	Kincardine.....	18,602	21,659
Brighton.....	13,222	15,134	Kingston.....	323,135	367,610
Brockville.....	112,241	125,038	Kingsville.....	24,295	28,044
Burlington.....	49,003	63,872	Kirkland Lake.....	96,472	103,643
Caledonia.....	10,885	12,815	Kitchener.....	397,192	460,993
Campbellford.....	19,686	23,169	Lakefield.....	12,125	14,067
Cardinal.....	12,223	13,933	Lambeth.....	1	10,116
Carleton Place.....	25,358	28,624	Lansing.....	1	13,195
Chapleau.....	18,701	23,153	Leamington.....	54,179	64,225
Chatham.....	210,835	247,415	Lindsay.....	74,650	87,988
Chesley.....	12,258	13,923	Listowel.....	23,410	26,881
Chesterville.....	1	10,111	Little Current.....	11,642	14,165
Chippawa.....	1	10,642	London.....	1,299,160	1,586,787
Cliffcrest.....	—	11,143	Madoc.....	10,361	11,939
Clinton.....	24,559	33,056	Malton.....	19,380	22,295
Cobalt.....	14,549	16,926	Maple.....	1	10,214
Cobourg.....	57,425	64,279	Marathon.....	11,621	15,362
Cochrane.....	28,183	33,091	Markham.....	11,327	11,755
Collingwood.....	37,771	44,414	Matheson.....	1	10,608
Cooksville.....	18,533	24,095	Mattawa.....	15,651	16,028
Copper Cliff.....	27,761	34,565	Meaford.....	18,752	22,108
Cornwall.....	144,419	162,495	Merrittton.....	1	11,276
Deep River.....	11,961	13,255	Midland.....	43,201	47,935
Delhi.....	21,685	26,911	Milton West.....	21,864	25,460
Dresden.....	13,153	15,318	Minden.....	1	10,215
Dryden.....	27,128	31,631	Mitchell.....	11,932	12,768
Dundas.....	43,190	50,676	Morrisburg.....	14,188	15,760
Dunnville.....	41,287	43,917	Mount Forest.....	15,103	17,599
Durham.....	11,326	13,843	Napanee.....	31,541	36,488
Eganville.....	1	12,588	New Hamburg.....	1	12,078
Elmira.....	16,616	20,824	New Liskeard.....	57,161	63,329
Elora.....	1	10,951	Newmarket.....	39,378	46,458
Englehart.....	11,310	12,647	Newton Brook.....	1	11,276
Espanola.....	17,275	21,769	Niagara Falls.....	321,679	397,518
Essex.....	19,705	25,498	Niagara-on-the-Lake.....	25,938	31,924
Exeter.....	17,176	20,667	Nipigon.....	11,390	12,424
Fenelon Falls.....	10,738	12,254	North Bay.....	155,852	183,579
Fergus.....	33,226	38,085	Norwich.....	11,608	13,268
Forest.....	13,337	15,906	Oakville.....	81,662	104,769
Fort Erie.....	57,915	75,556	Orangeville.....	25,063	29,884
			Orillia.....	101,794	116,583
			Oshawa.....	341,648	402,209
			Ottawa.....	2,261,592	2,458,658

For footnotes, see end of table, p. 858.

**3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, for the
Years Ended Mar. 31, 1951 and 1952—continued**

Province and Post Office	1951	1952	Province and Post Office	1951	1952
Ontario—continued	\$	\$	Ontario—concluded	\$	\$
Owen Sound.....	157,862	166,567	Warton.....	13,162	14,705
Palmerston.....	11,058	13,609	Willowdale.....	81,373	140,389
Paris.....	71,631	84,448	Winchester.....	10,560	12,566
Parry Sound.....	36,749	41,532	Windsor.....	1,056,723	1,223,835
Pembroke.....	77,955	88,352	Wingham.....	20,541	23,213
Penetanguishene.....	16,570	18,503	Woodbridge.....	1	12,746
Perth.....	43,746	50,877	Woodstock.....	138,428	162,926
Peterborough.....	301,600	364,491			
Petrolia.....	17,091	20,780	Totals, Ontario.....	39,359,691	46,518,156
Pickering.....	1	13,080			
Pictou.....	41,423	52,092	Manitoba		
Port Arthur.....	208,100	247,428	Altona.....	11,151	13,420
Port Colborne.....	59,220	71,615	Beauséjour.....	1	10,104
Port Credit.....	40,076	54,143	Boissevain.....	10,658	12,425
Port Dalhousie.....	14,201	16,291	Brandon.....	188,524	217,122
Port Dover.....	15,424	18,380	Carman.....	14,982	17,275
Port Elgin.....	11,699	13,452	Dauphin.....	46,308	52,266
Port Hope.....	51,987	58,338	Flin Flon.....	46,998	53,136
Port Perry.....	10,393	12,154	Gimli.....	1	16,597
Prescott.....	24,673	28,711	Killarney.....	10,907	12,726
Preston.....	60,325	69,126	Minnedosa.....	16,377	18,195
Rainy River.....	1	10,133	Morden.....	13,989	15,446
Red Lake.....	12,767	13,196	Morris.....	1	11,321
Renfrew.....	49,576	55,200	Neepawa.....	24,532	27,214
Richmond Hill.....	17,409	21,590	Pine Falls.....	13,410	16,183
Ridgetown.....	16,571	18,695	Portage la Prairie.....	62,845	74,069
Ridgeway.....	10,774	12,604	Roblin.....	11,125	13,063
Rodney.....	1	10,594	Russell.....	11,509	12,699
St. Catharines.....	309,233	373,317	Selkirk.....	24,258	28,848
St. Mary's.....	27,333	32,233	Snow Lake.....	10,050	1
St. Thomas.....	137,214	160,513	Souris.....	12,253	13,836
Sarnia.....	191,514	239,862	Steinbach.....	13,646	17,141
Sault Ste. Marie.....	182,027	219,371	Swan River.....	21,541	25,075
Scarborough Bluffs.....	13,731	16,541	The Pas.....	25,851	27,653
Schreiber.....	1	10,380	Transcona.....	14,984	16,944
Schumacher.....	22,283	20,146	Virde.....	16,383	19,127
Seaforth.....	16,892	20,836	Wawanesa.....	12,505	10,975
Shelburne.....	1	11,241	Winkler.....	10,318	11,729
Simcoe.....	84,348	97,728	Winnipeg.....	5,839,579	6,713,897
Sioux Lookout.....	21,450	25,381			
Smiths Falls.....	49,354	57,592	Totals, Manitoba.....	7,275,059	8,355,009
Smooth Rock Falls.....	1	11,715			
Southampton.....	1	12,046	Saskatchewan		
South Porcupine.....	25,226	25,253	Assiniboia.....	20,003	23,862
Stayner.....	1	10,630	Biggar.....	16,034	17,378
Stoney Creek.....	13,777	16,914	Big River.....	1	10,316
Stouffville.....	12,686	15,410	Broadview.....	1	11,653
Stratford.....	134,250	157,750	Canora.....	14,726	17,256
Strathroy.....	26,412	31,425	Carlyle.....	1	10,658
Streetsville.....	11,264	16,147	Estevan.....	33,064	35,667
Sturgeon Falls.....	19,315	21,945	Eston.....	11,109	11,940
Sudbury.....	276,101	340,555	Foam Lake.....	1	11,102
Tecumseh.....	10,086	12,105	Fort San.....	1	10,068
Thamesville.....	1	10,468	Gravelbourg.....	11,017	12,866
Thessalon.....	14,234	13,084	Hudson Bay.....	1	11,777
Thorold.....	52,579	58,929	Humboldt.....	25,256	29,645
Tilbury.....	18,361	21,185	Indian Head.....	12,268	14,181
Tillsonburg.....	43,210	51,197	Kamsack.....	15,588	17,739
Timmins.....	135,554	149,961	Kerrobert.....	10,302	11,682
Toronto.....	20,045,041	23,883,460	Kindersley.....	16,048	18,880
Trenton.....	57,150	68,546	Lloydminster.....	37,490	43,942
Tweed.....	13,955	16,562	Maple Creek.....	16,013	18,641
Uxbridge.....	12,383	14,970	Meadow Lake.....	13,752	17,033
Walkerton.....	24,500	26,545	Melfort.....	31,542	35,600
Wallaceburg.....	49,205	67,212	Melville.....	30,277	34,239
Waterford.....	12,075	13,256	Moose Jaw.....	201,455	229,378
Waterloo.....	143,903	169,985			
Watford.....	14,627	12,181			
Welland.....	156,086	185,194			
Westboro (Ottawa).....	27,118	31,997			
West Hill.....	1	14,426			
Whitby.....	29,205	34,391			

For footnote, see end of table, p. 858.

3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, for the Years Ended Mar. 31, 1951 and 1952—continued

Province and Post Office	1951	1952	Province and Post Office	1951	1952
	\$	\$		\$	\$
Saskatchewan—concl.			Alberta—concluded		
Moosomin.....	13,965	15,498	Wainwright.....	16,240	22,908
Nipawin.....	21,447	25,384	Westlock.....	15,707	17,799
North Battleford.....	80,146	93,347	Wetaskiwin.....	30,274	36,001
Prince Albert.....	140,554	163,137			
Regina.....	1,729,440	2,047,476	Totals, Alberta.....	5,922,910	6,896,147
Rosetown.....	20,572	23,569			
Rosthern.....	10,220	12,537	British Columbia		
Saskatoon.....	672,647	789,314			
Shaunavon.....	15,827	18,611	Abbotsford.....	36,091	43,416
Shellbrook.....	1	10,543	Alberni.....	17,054	19,800
Swift Current.....	78,876	83,131	Aldergrove.....	1	10,613
Tisdale.....	27,429	29,698	Alert Bay.....	1	10,302
Unity.....	11,962	14,230	Armstrong.....	14,983	16,405
Wadena.....	13,064	15,013	Ashcroft.....	1	10,227
Watrous.....	10,574	11,639	Bralorne.....	1	10,761
Weyburn.....	45,140	52,722	Burns Lake.....	1	17,981
Wilkie.....	13,602	15,568	Campbell River.....	16,832	27,248
Wynyard.....	11,070	12,920	Castlegar.....	1	11,028
Yorkton.....	80,252	92,425	Chemainus.....	14,996	16,913
Totals, Saskatchewan..	5,091,593	5,912,930	Chilliwack.....	78,812	89,540
			Cloverdale.....	32,578	36,455
Alberta			Courtenay.....	39,497	46,929
Athabaska.....	11,075	12,468	Cranbrook.....	43,560	47,532
Banff.....	35,696	44,179	Creston.....	23,906	26,577
Barrhead.....	14,237	15,918	Cumberland.....	10,475	10,661
Blairmore.....	14,129	15,897	Dawson Creek.....	34,099	39,866
Bonnyville.....	10,273	11,509	Duncan.....	61,509	72,131
Bowden.....	1	11,241	Enderby.....	1	11,154
Brooks.....	22,951	25,866	Fernie.....	20,316	23,270
Calgary.....	1,610,791	1,896,797	Fort St. John.....	13,280	14,664
Camrose.....	39,564	45,639	Ganges.....	10,341	11,403
Cardston.....	18,711	20,359	Gibsons.....	1	10,883
Claresholm.....	13,166	19,667	Grand Forks.....	16,199	18,370
Coaldale.....	1	10,114	Haney.....	27,363	32,409
Coleman.....	14,991	16,605	Hope.....	13,610	16,593
Didsbury.....	13,361	15,279	Kamloops.....	107,990	128,645
Drumheller.....	39,255	44,337	Kelowna.....	122,069	133,874
Edmonton.....	1,911,207	2,243,434	Kimberley.....	31,997	35,939
Edson.....	17,550	21,320	Ladner.....	21,697	24,500
Fairview.....	10,822	13,057	Ladysmith.....	17,126	19,326
Grande Prairie.....	39,251	44,762	Lake Cowichan.....	1	10,732
Hanna.....	16,904	20,485	Langley Prairie.....	32,617	39,310
High Prairie.....	12,673	13,663	Merritt.....	10,391	12,220
High River.....	19,291	21,214	Mission City.....	40,510	48,737
Innisfail.....	17,695	20,078	Nanaimo.....	119,975	135,092
Jasper.....	19,863	20,701	Nelson.....	96,273	107,636
Lacombe.....	26,355	30,470	New Westminster.....	358,899	405,614
Leduc.....	13,742	17,327	Ocean Falls.....	16,702	20,495
Lethbridge.....	230,284	264,534	Oliver.....	22,581	25,391
Macleod.....	15,424	17,481	Osoyoos.....	11,145	12,066
Medicine Hat.....	101,738	119,321	Parksville.....	11,477	12,749
Nanton.....	1	10,346	Penticton.....	88,599	97,096
North Edmonton.....	12,405	13,386	Port Alberni.....	58,529	67,719
Olds.....	21,099	23,918	Port Alice.....	1	10,085
Peace River.....	26,732	33,141	Port Coquitlam.....	14,255	16,169
Pincher Creek.....	15,868	17,470	Powell River.....	24,697	30,331
Ponoka.....	24,385	28,989	Prince George.....	66,034	87,056
Raymond.....	13,179	14,993	Prince Rupert.....	90,924	101,578
Red Deer.....	75,568	89,617	Princeton.....	16,436	18,583
Rocky Mountain House..	10,823	15,170	Qualicum Beach.....	11,813	13,303
St. Paul.....	14,572	16,777	Quesnel.....	25,348	32,592
Stettler.....	24,872	30,177	Revelstoke.....	24,470	28,893
Taber.....	22,274	25,029	Roseland.....	20,537	23,173
Three Hills.....	24,169	33,207	Royal Oak.....	10,093	1
Vegreville.....	18,224	21,574	Sanighton.....	1	12,501
Vermilion.....	22,993	25,227	Salmon Arm.....	25,347	29,310
Viking.....	1	10,143	Sardis.....	11,542	13,539
Vulcan.....	11,875	13,941	Sidney.....	20,110	22,619
			Smithers.....	14,654	19,276
			Steveston.....	11,005	13,546

For footnote, see end of table, p. 858.

3.—Gross Postal Revenue of Offices collecting upwards of \$10,000, for the Years Ended Mar. 31, 1951 and 1952—concluded

Province and Post Office	1951	1952	Province and Post Office	1951	1952
\$	\$		\$	\$	
British Columbia—concl.			Northwest Territories		
Terrace.....	10,503	16,825	Yellowknife.....	35,595	36,598
Trail.....	109,217	124,696			
Vancouver.....	5,283,426	6,172,493	Totals, N.W.T.....	50,559	54,187
Vancouver (A.M.F.) ¹	—	23,896			
Vanderhoof.....	1	12,270			
Vernon.....	95,985	104,172	Summary		
Victoria.....	1,090,519	1,285,306	Newfoundland.....	945,478	1,109,669
West Summerland.....	15,810	17,081	Prince Edward Island....	357,496	409,447
Westview.....	15,185	17,446	Nova Scotia.....	3,421,831	3,904,511
White Rock.....	20,778	24,782	New Brunswick.....	2,909,170	3,283,426
Williams Lake.....	15,772	20,635	Quebec.....	21,790,583	25,715,448
Totals, British Columbia	9,704,846	11,295,281	Ontario.....	39,359,691	46,518,156
			Manitoba.....	7,275,059	8,355,009
Yukon Territory			Saskatchewan.....	5,091,593	5,912,930
Dawson.....	16,404	15,113	Alberta.....	5,922,910	6,896,147
Whitehorse.....	41,487	48,776	British Columbia.....	9,704,846	11,295,281
			Yukon and N.W.T.....	121,671	134,629
Totals, Yukon Territory	71,112	80,442	Canada.....	96,900,328	113,534,651
			P.C. of all Postal Revenue	91.8	92.9

¹ Less than \$10,000.
in Rivière-du-Loup.

² Included in St. John's.
⁵ Closed Jan. 29, 1952.

³ Closed May 26, 1951.

⁶ Included in Thorold.

⁴ Included
⁷ Air mail field.

Postage.—The gross revenue receipts shown in Table 2 are received mainly from postage, either in the form of postage stamps and stamped stationery, or postage meter and postage register machine impressions. Some postage is also paid in cash without stamps, stamped stationery or meter and register impressions. The gross value of the postage stamps and stamped stationery sold during each of the latest five fiscal years was: \$56,303,157 in 1947-48, \$56,317,570 in 1948-49, \$57,249,306 in 1949-50, \$57,178,573 in 1950-51 and \$65,093,099 in 1951-52. Receipts from postage meter or postage register impressions and postage paid in cash by other means were as follows: \$28,959,194 in 1947-48, \$33,315,148 in 1948-49, \$36,292,710 in 1949-50, \$39,979,297 in 1950-51 and \$48,945,565 in 1951-52.

Section 2.—Auxiliary Postal Services

Auxiliary postal services include the issuing of money orders and the operation of the Post Office Savings Bank.

Table 4 shows the amount of money-order business conducted by the Postal Service in recent years. The analysis of such business by provinces, published in former editions of the Year Book, has been discontinued; because of a change in the type of money orders and in the method of recording them, the statistics cannot be presented on a basis comparable with earlier years.

A table showing the financial business of the Post Office Savings Bank will be found in the Chapter on Currency and Banking, p. 1116.

4.—Operations of the Money-Order System, Years Ended Mar. 31, 1943-52

NOTE.—Figures for 1868-1942 will be found in the corresponding table of previous Year Books, beginning with the 1911 edition.

Year	Money-Order Offices in Canada	Money-Orders Issued in Canada	Value of Orders Issued in Canada	Value Payable in—		Value of Orders Issued in Other Countries, Payable in Canada
				Canada	Other Countries	
	No.	No.	\$	\$	\$	\$
1943.....	7,306	18,627,228	236,925,920	233,004,136	3,921,784	6,887,250
1944.....	7,362	19,554,760	262,297,331	256,630,949	5,666,382	8,440,436
1945.....	7,406	20,742,643	281,890,291	276,704,712	5,185,579	8,467,849
1946.....	7,377	22,031,756	290,933,503	285,574,174	5,359,329	8,732,635
1947.....	7,416	25,184,900	329,557,703	321,728,205	7,829,498	9,150,238
1948.....	7,546	27,705,523	370,232,987	359,633,658	10,599,329	7,722,585
1949.....	7,614	28,851,065	415,703,754	409,167,635	6,536,119	7,410,014
1950.....	11,252	38,567,500	479,520,987	473,364,799	6,156,187	6,697,818
1951.....	11,387	40,415,207	511,915,621	505,935,524	5,980,096	3,920,218
1952.....	11,320	41,782,109	576,614,652	567,187,152	9,427,500	3,019,522

PART IX.—THE PRESS

The tables of this Part are based on data obtained from *Canadian Advertising*. One serious difficulty has been encountered in connection with the compilation of circulation figures. In the case of daily newspapers, reliable circulation figures are relatively easy to obtain since, in their own best interest, such papers qualify for and subscribe to the Audit Bureau of Circulation requirements. In such cases, A.B.C. 'net paid' figures were used. However, it is difficult to obtain reliable circulation figures for many weekly newspapers that do not subscribe to the Audit Bureau. In these cases, total circulation (paid and free) was taken where such figures were supported by sworn statements or some other reliable record.

In compiling magazine circulation, total net paid figures, as reported by publishers to the Audit Bureau (including bulk sales), were used. In the relatively few cases where such figures were not available, minimum publishers' claims or sworn statements were accepted.

Daily Newspapers.—Daily newspapers are published in Canada in three main language groups: English, French and foreign. French daily newspapers have, as would be expected, a wide circulation in the Province of Quebec and some of the largest of these papers have been established in the Province for over 60 years. Eleven of the 13 French-language newspapers published in 1951, reported from that Province, the other two being in the Provinces of Ontario and New Brunswick.

Many of the daily newspapers extend their influence over the rural areas surrounding the cities where they are published. In this respect they supplement the weekly newspapers which feature essentially local news and serve the smaller cities, towns and rural areas only.

The larger metropolitan dailies, especially those of Montreal, Que., and Toronto, Ont., have built up considerable circulation in areas outside their own cities. This is especially true since rapid freight transport by highway and latterly by air has become more common. For instance, Montreal and Toronto morning papers (printed late the previous evening) can now be transported to Ottawa and delivered along the morning routes in competition with the local morning papers. Since these large metropolitan dailies can command exclusive feature services that the dailies of the smaller cities cannot afford, it often places them in an advantageous position in competition with the local dailies.

Weekly Newspapers.*—Weekly newspapers circulate within relatively restricted areas around their publication centres. These cater to a limited local interest but, within the areas they serve, they exercise an important influence. Canada is well served by foreign-language weekly newspapers. In 1951, they had a stated circulation of 215,354 copies, among which Ukrainian papers had a circulation of 67,179 copies, Yiddish 28,465, German 30,620, and Polish 23,656 copies.

Other Publications and Periodicals.—Table 6 gives the number of publications, other than newspapers, published in Canada. Monthly and weekly magazines and periodicals enjoy the largest circulation while those dealing with home, social and welfare, agricultural and rural topics, and religious, trade, industry and related subjects are the most popular types.

* Including a very few semi- and tri-weekly newspapers.

1.—Estimated Numbers and Circulations¹ of reporting Daily and Weekly² English-Language Newspapers, by Provinces, 1949-51

NOTE.—Figures for the years 1938-46 are given at p. 788 of the 1948-49 Year Book and for 1947-48 at p. 824 of the 1951 edition.

Province or Territory	1949 ²				1950				1951			
	Daily		Weekly		Daily		Weekly		Daily		Weekly	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Nfld.....	2	24,353	7	43,833	2	24,385	6	41,404	2	22,905	8	44,889
P.E.I.....	2	17,707	2	5,510	2	18,321	2	6,624	2	18,713	1	3,541
N.S.....	6	206,342	28	81,545	6	209,360	28	80,026	6	205,833	28	80,376
N.B.....	4	74,437	15	36,758	3	72,277	16	45,457	4	71,913	16	45,398
Que.....	5	253,019	27	570,433	5	256,917	27	508,061	5	260,835	27	429,881
Ont.....	37	1,485,591	254	1,414,204	37	1,519,067	252	1,441,306	37	1,551,490	255	1,416,234
Man.....	5	169,674	63	65,071	5	174,291	66	71,022	6	180,256	64	69,168
Sask.....	4	85,502	132	132,136	4	89,360	135	138,194	4	90,839	151	149,238
Alta.....	6	165,170	111	107,269	6	174,428	107	109,901	5	169,909	111	115,108
B.C.....	10	362,872	75	173,441	11	375,032	74	173,671	11	367,723	75	171,827
Yukon and N.W.T...	—	—	3	2,225	—	—	3	2,550	—	—	3	2,850
Canada..	81	2,844,667	717	2,632,425	81	2,913,438	716	2,618,216	82	2,940,416	739	2,528,510

¹ Circulation not reported in all cases.

² Includes bi-weeklies, tri-weeklies and national week-end papers.

2.—Estimated Numbers and Circulations¹ of reporting Daily and Weekly French-Language Newspapers, by Provinces, 1949-51

NOTE.—Figures for the years 1938-46 are given at p. 789 of the 1948-49 Year Book and for 1947-48 at p. 824 of the 1951 edition.

Province	1949*				1950				1951			
	Daily		Weekly		Daily		Weekly		Daily		Weekly	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Nfld.....	—	—	—	—	—	—	—	—	—	—	—	—
P.E.I.....	—	—	—	—	—	—	—	—	—	—	—	—
N.S.....	—	—	1	1,456	—	—	1	1,401	—	—	1	1,435
N.B.....	1	—	1	4,100	1	6,696	1	4,332	1	7,041	1	4,000
Que.....	11	583,053	107	1,351,692	11	582,433	106	1,396,396	11	581,151	110	1,421,417
Ont.....	1	24,954	3	6,895	1	28,374	3	7,100	1	27,712	3	7,100
Man.....	—	—	1	9,859	—	—	1	10,372	—	—	1	10,447
Sask.....	—	—	1	914	—	—	1	914	—	—	1	1,302
Alta.....	—	—	1	3,381	—	—	1	3,493	—	—	1	3,612
B.C.....	—	—	—	—	—	—	—	—	—	—	—	—
Totals.....	13	608,007	115	1,378,297	13	617,503	114	1,424,008	13	615,904	118	1,419,313

* Circulation not reported in all cases.

² Includes national week-end papers.

3.—Estimated Numbers and Net Paid Circulations of reporting Daily and Weekly English-Language Newspapers published in Urban Centres of 30,000 Population or Over, 1950 and 1951.

NOTE.—Figures for 1945 are given at p. 753 of the 1947 Year Book; for 1946 and 1947 at p. 790 of the 1948-49 edition; and for 1948-49 at p. 825 of the 1951 Year Book.

Urban Centre	Census 1951	1950				1951			
	Households	Daily		Weekly		Daily		Weekly	
	No.	No.	Net Paid Circulation	No.	Net Paid Circulation	No.	Net Paid Circulation	No.	Net Paid Circulation
Brantford.....	10,380	1	18,579	—	—	1	19,058	—	—
Calgary.....	37,705	2	72,119	—	—	2	75,163	—	—
Edmonton.....	43,090	2	84,371	5	10,500	1	76,296	4	10,050
Fort William.....	9,295	1	12,964	—	—	1	13,035	—	—
Halifax.....	18,765	2	169,637	—	—	2	166,229	—	—
Hamilton.....	55,340	1	77,416	1	18,250	1	78,238	1	18,250
Kingston.....	8,695	1	17,906	—	—	1	17,069	—	—
Kitchener.....	11,575	1	24,556	—	—	1	25,842	—	—
London.....	26,315	1	75,846	—	—	1	80,188	—	—
Montreal.....	248,110	3	243,057	7	423,521 ¹	3	246,560	7	344,172 ¹
Oshawa.....	11,225	1	10,917	—	—	1	10,918	—	—
Ottawa.....	48,955	2	105,215	—	—	2	114,142	—	—
Peterborough.....	10,025	1	15,698	1	7,333	1	15,649	1	6,401
Port Arthur.....	8,415	1	10,661	—	—	1	11,412	—	—
Quebec.....	35,045	1	4,429	—	—	1	4,959	—	—
Regina.....	19,220	1	42,782	1	2,487	1	43,156	1	2,487
St. Catharines.....	10,405	1	18,423	—	—	1	18,760	—	—
St. John's.....	10,605	2	24,385	2	29,254 ²	2	22,905	2	29,372 ²
Saint John.....	13,215	1	43,635	1	5,500	1	42,724	1	5,500
Sarnia.....	9,380	1	11,060	—	—	1	11,859	—	—
Saskatoon.....	15,030	1	32,685	—	—	1	33,612	—	—
Sault Ste. Marie.....	7,865	1	10,945	—	—	1	11,704	—	—
Sherbrooke.....	11,505	1	9,431	1	3,400	1	9,316	1	3,400
Sudbury.....	9,460	1	16,455	—	—	1	18,277	—	—
Sydney.....	6,355	1	27,070	—	—	1	26,677	—	—
Toronto.....	157,205	4	869,058	4	951,275 ²	4	878,904	5	917,515 ³
Three Rivers.....	9,505	—	—	—	—	—	—	1	3,889
Vancouver.....	101,510	3	302,568	2	7,750	3	295,543	2	7,750
Vernon.....	19,775	—	—	2	32,483 ⁴	—	—	2	32,477 ⁴
Victoria.....	15,810	2	46,120	1	30,880 ⁵	2	45,761	1	30,602 ⁵
Windsor.....	31,820	1	67,242	—	—	1	69,542	—	—
Winnipeg.....	64,700	2	165,495	—	—	2	169,353	—	—

¹ Includes 2 national week-end, 2 bilingual and 1 Saturday edition.

² Includes 1 national week-end.

³ Includes 2 national week-end.

⁴ Includes 1 bilingual.

⁵ Saturday edition.

4.—Estimated Numbers and Circulations of reporting Daily and Weekly French-Language Newspapers in Urban Centres of 30,000 Population or Over, 1950 and 1951.

NOTE.—Figures for 1945 are given at p. 754 of the 1947 Year Book; for 1946 and 1947 at p. 835 of the 1950 edition; and for 1948-49 at p. 826 of the 1951 edition.

Urban Centre	Census 1951	1950				1951			
	House- holds	Daily		Weekly		Daily		Weekly	
	No.	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Edmonton.....	43,090	—	—	1	3,493	—	—	1	3,612
Hull.....	9,335	—	—	2	7,106	—	—	2	7,106
Montreal.....	248,110	5	327,295	13	1,031,279 ¹	5	324,680	13	1,049,643
Ottawa.....	48,955	1	28,374	—	—	1	27,712	—	—
Quebec.....	35,045	3	212,018	—	—	3	211,626	—	—
Sherbrooke.....	11,505	1	19,244	1	30,775	1	20,060	1	30,775
Sudbury.....	9,460	—	—	1	1,825	—	—	1	1,825
Three Rivers.....	9,505	—	23,876	2	6,378	1	24,785	2	6,223
Winnipeg.....	64,700	1	—	1	10,372	—	—	1	10,447

¹ Includes 2 bilingual, 5 national week-end, 2 Saturday and 1 Sunday editions.

5.—Estimated Numbers and Circulations of Weekly Foreign-Language Newspapers, 1949-51

NOTE.—Figures for the years 1938-45 are given at p. 792 of the 1948-49 Year Book; for 1946 at p. 836 of the 1950 edition; and for 1947-48 at p. 827 of the 1951 edition.

Language	1949		1950		1951	
	No.	Circulation	No.	Circulation	No.	Circulation
Bulgarian.....	1	1,000	1	1,000	1	1,000
Estonian.....	—	—	1	1,500	1	2,500
Finnish.....	2	8,000	2	8,000	4	17,200
German.....	4	25,998	4	26,640	4	30,620
Hungarian.....	1	3,450	1	3,450	1	3,450
Icelandic.....	3	13,425	3	13,425	3	13,425
Japanese.....	1	3,380	1	3,400	1	3,400
Lithuanian.....	1	..	1	..	1	..
Norwegian.....	1	4,820	1	4,820	2	6,320
Polish.....	3	17,101	3	18,263	3	23,656
Slovak.....	1	2,500	1	2,500	1	3,500
Swedish.....	3	9,571	3	9,571	3	9,871
Ukrainian.....	6	55,832	6	63,600	8	67,179
Yiddish.....	3	28,958	3	28,958	3	28,465
Yugoslav.....	1	3,445	1	3,811	1	4,768

6.—Estimated Numbers and Circulations of reporting Magazines and Related Publications, by Broad Classifications, 1949-51

NOTE.—Figures for the years 1938-45 are given at p. 793 of the 1948-49 Year Book; for 1946 at p. 836 of the 1950 edition; and for 1947-48 at p. 827 of the 1951 edition.

Classification	1949*			1950			1951		
	Listed	Reporting		Listed	Reporting		Listed	Reporting	
	No.	No.	Circulation	No.	No.	Circulation	No.	No.	Circulation
Agricultural and rural....	54	50	2,346,802	56	54	2,445,265	55	52	2,534,970
Arts, crafts and professions	13	12	154,644	16	15	113,953	19	18	113,399
Construction.....	16	16	91,988	17	17	118,224	16	16	121,415
Educational.....	43	37	276,977	50	45	389,428	54	51	438,899
Finance and insurance....	15	7	72,498	14	6	61,815	14	7	67,455
Government and govern- ment services.....	24	20	242,618	27	24	254,782	27	24	268,107
Home, social and welfare.	46	40	3,447,259	46	43	3,683,084	47	44	3,932,209
Labour.....	19	14	199,339	19	14	196,383	20	17	235,924
Pharmaceutical and medi- cal.....	25	21	100,007	30	26	112,662	32	28	116,582
Religious.....	36	36	725,481	37	37	694,150	35	35	698,207
Services and directories...	55	45	244,635	60	51	293,943	61	52	300,282
Sports and entertainment.	28	22	303,712	31	21	279,933	26	19	315,580
Trade, industry and other related publications....	165	157	743,432	166	157	745,398	171	158	790,155
Transportation and travel	29	27	196,228	27	25	205,987	29	28	235,223
Miscellaneous.....	48	48	537,791	40	40	462,403	40	39	443,770
Totals.....	616	552	9,683,411	636	575	10,057,410	646	588	10,612,177

CHAPTER XX.—DOMESTIC TRADE

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—THE MOVEMENT AND MARKETING OF COMMODITIES

The different directions that economic development has taken across Canada and the diverse resources of various parts of the country have led to a vast exchange of products. The task of providing goods and services where they are required for consumption or use by the widely scattered population of 14,009,429 (June 1, 1951, Census) accounts for a greater expenditure of economic effort than that required for the prosecution of the country's large volume of foreign trade, high though Canada ranks in this field among the countries of the world.

Domestic trade is broad and complicated: it encompasses all values added to commodities traded, provincially and interprovincially, by agencies and services connected with the storage, distribution and sale of goods, such as railways, steamships, warehouses, wholesale and retail stores, financial institutions, etc. Taken in a wide sense it embraces various professional and personal services including those directed to the amusement of the people, such as theatres, sports, etc. However, not all phases of this broad field are covered here though, wherever possible, cross references are given to related material occurring in other Chapters. The arrangement of material in a volume such as the Year Book is governed by the necessity of interpretation from various angles. The Index will be found useful in this respect.

Section 1.—Grain Trade* -

Subsection 1.—Marketing Problems and Policies, 1949-50 to 1951-52

Wheat.—Requirements and Supplies.—World demand for wheat and wheat products has, for the most part, remained firm during the period under review although foreign exchange difficulties and political problems have become increasingly important factors in the international movement of grain and flour.

On the supply side, Canada harvested a near-average crop (371,400,000 bu.) of good quality wheat in 1949 followed by an above-average crop (461,700,000 bu.) in 1950 and a near-record outturn (552,700,000 bu.) in 1951. The season was late, however, in the latter two years. In 1950, a substantial proportion of the crop was frosted, with some acreage remaining unthreshed over winter. In 1951, autumn rains prevented completion of harvest and an estimated 150,000,000 bu. remained for spring threshing. While it was possible to recover most of the over-wintered grain of both crops, the impact of these two abnormal harvests created serious handling problems.

Large quantities of low-grade wheat from the 1950 harvest had to be disposed of and the lateness of the season delayed movement of grain to forward positions. Similar conditions prevailed in 1951-52 with the addition of a tremendous drying problem arising out of the unprecedented volume of tough and damp grain threshed in the autumn of 1951. However, with the excellent co-operation of all agencies concerned, it was possible to save nearly all of these out-of-condition stocks. During the winter months buyers accepted large quantities of tough wheat and all available drying equipment, including facilities at Duluth and Buffalo, U.S.A., was utilized. By a stroke of fortune, the spring of 1952 was early and warm and spring-threshed grain turned out very dry. This made possible the use of the 'natural' drying process whereby dry grain is mixed with tough and damp stocks to bring the moisture content of the whole to a straight grade level.

Despite all the difficulties surrounding the handling of the 1951 crop, exports of wheat as grain for the 1951-52 crop year, at 304,700,000 bu., were exceeded only once before in the country's history when 354,400,000 bu. were exported in 1928-29. Combined exports of wheat and wheat flour in terms of wheat during 1951-52 amounted to 356,600,000 bu., an increase of 115,600,000 bu. over 1950-51. However, the merchandising problems associated with handling unusually large quantities of out-of-condition grain from two successive late crops held export movements to a much lower level than would have been the case had these crops been threshed in good condition at the normal time of year. In consequence, some build-up in carryover occurred, wheat stocks at July 31, 1951, amounting to 189,200,000 bu. compared to 112,200,000 bu. a year earlier. Estimated total supplies of Canadian wheat for the crop year 1951-52 (carryover at July 31, 1951, plus 1951 crop) amounted to 741,900,000 bu. The carryover at July 31, 1952, showed a further increase although stocks were well below the levels existing at the close of the crop years 1940-41 to 1943-44, when carryover stocks ranged from 357,000,000 bu. to 595,000,000 bu.

* Prepared by the Chief of the Crops Section, Agriculture Division, Dominion Bureau of Statistics.

1.—Production, Imports, Exports and Domestic Use of Wheat and Wheat Flour, Crop Years Ended July 31, 1945-52

(Millions of bushels)

Item	1945-46	1947-48	1948-49	1949-50	1950-51	1951-52
Carryover Aug. 1.....	258.1	86.1	77.7	102.4	112.2	189.2
Production.....	318.5	341.8	386.3	371.4	461.7	552.7
Imports.....	0.1	0.8	0.3	¹	¹	¹
Totals, Supply.....	576.7	428.7	464.3	473.8	573.9	741.9
Exports.....	343.2	195.0	232.3	225.1	241.0	356.6
Domestic use.....	159.9	156.0	129.6	136.5	143.7	173.1
Totals, Disposition.....	503.1	351.0	361.9	361.6	384.7	529.7
Carryover July 31.....	73.6	77.7	102.4	112.2	189.2	212.2

¹ Less than 50,000 bu.

Price and Marketing Arrangements.—Since Aug. 1, 1949, the greater part of Canada's export wheat has moved under the terms of the International Wheat Agreement.* Under this Agreement, provision was made for the recognition of prior sales agreements between signatory countries and most of the wheat which Canada supplied to the United Kingdom in 1949-50, the final year of the Canada-United Kingdom Wheat Agreement, was recorded by the International Wheat Council. These sales, however, were subject to the 1949-50 price provisions of the Canada-United Kingdom Wheat Agreement. During 1949-50, the domestic price and the price under the Canada-United Kingdom Wheat Agreement were \$2.00 plus 6 cents per bu. carrying charges (5 cents until Sept. 30), basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. The price to countries under the provisions of the International Wheat Agreement was \$1.80 per bu. (maximum level) from the beginning of the crop year (Aug. 1, 1949) until the devaluation of the Canadian dollar on Sept. 19, 1949. After devaluation the price was increased to \$1.98 per bu. where it remained until the close of the crop year. A carrying charge of 5 cents per bu. applied from the beginning of the crop year until Dec. 13, when it was dropped. Class II prices (applicable to wheat for sale to countries outside the I.W.A.) fluctuated from a low of \$2.04 per bu. on Aug. 16 to a high of \$2.41 on Oct. 6, and when the crop year closed on July 31, 1950, it stood at \$2.06. Canada's quota for 1949-50 under I.W.A. was 205,100,000 bu. of wheat and flour in terms of wheat and, according to the annual report of the International Wheat Council, Canadian sales were 185,400,000 bu. Total Canadian exports of wheat and flour in terms of wheat for the crop year were 225,100,000 bu.

The five-year pool under which producers had been marketing their wheat terminated on July 31, 1950, and since then one-year pools have been in effect. Under the five-year pool, the initial payment on Apr. 1, 1949, reached a level of \$1.75 per bu. for No. 1 Northern, basis in store Fort William-Port Arthur or Vancouver. On Mar. 2, 1951, a final payment of approximately 8.3 cents per bu. was announced to cover all wheat delivered to the Wheat Board (about 1,428,000,000 bu.) during the five-year-pool period, thus bringing the total price to farmers to \$1.833 per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver.

* A general outline of the Agreement is given in the 1950 Year Book, pp. 839-840.

Canada's guaranteed quantity under I.W.A. for 1950-51 was 221,600,000 bu. and, according to the Canadian Wheat Board, sales of wheat (including flour) under the Agreement amounted to 194,700,000 bu. Total exports for the crop year were 241,000,000 bu. From Aug. 1, 1950, until Oct. 2, 1950, I.W.A. sales were made at the maximum of \$1.98 per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. With the decontrol of the Canadian dollar on that date, fluctuation in value of the Canadian dollar became a factor in the pricing of wheat, the maximum price of I.W.A. wheat varying with the movement of the dollar. All Canada's sales under I.W.A. during 1950-51 were made at the maximum level. Canadian wheat sold outside the Agreement continued to move under the Class II price which, on Aug. 1, 1950, was \$2.06 per bu., basis in store Fort William-Port Arthur or Vancouver. In the last few days of August and through early September the price dropped to the I.W.A. level of \$1.98. From Sept. 20 to early January it held at some cents above the I.W.A. price and then began to move upward. At July 31, 1951, the Class II price stood at \$2.36½ per bu. as against \$1.90½ for I.W.A. wheat. Sales of wheat for domestic use during 1950-51 were made at the I.W.A. price until June 15, when a carrying charge of 6 cents per bushel was added on all domestic sales.

At the outset of the 1950-51 crop year western farmers received an initial payment of \$1.40 per bu. for No. 1 Northern, basis in store Fort William-Port Arthur or Vancouver, with the final price to be received by producers for each grade depending upon the average prices at which the Canadian Wheat Board sold such grade of wheat in the 1950-51 pool. Effective Feb. 1, 1951, the initial payment was increased to \$1.60 per bu., with adjustment payments of 20 cents per bu. being paid on all wheat delivered between Aug. 1, 1950, and Jan. 31, 1951. On Nov. 19, 1951, it was announced that net surplus in the 1950-51 wheat pool was \$104,900,000, amounting to an average final payment of 28.65 cents per bu. on the 366,200,000 bu. of wheat delivered to the Board in 1950-51. The final payment for No. 1 Northern wheat was 25.498 cents per bu. making the total return to producers for No. 1 Northern, basis in store Fort William-Port Arthur or Vancouver, \$1.85498 per bu.

Canada's quota under I.W.A. for 1951-52 was revised on May 1, 1952, to a level of 238,500,000 bu., all of which was sold. Altogether, Canada sold wheat and/or flour to all but five of the 42 importing countries participating in the multilateral pact. Sales under I.W.A. continued at the maximum price level plus 6 cents per bu., carrying charges added to all sales registered against 1951-52 Agreement quotas. With the rise in value of the Canadian dollar relative to the United States dollar, the I.W.A. price declined accordingly. The average price of Canadian I.W.A. wheat for July 1952 was \$1.74½ per bu. plus 6 cents carrying charges, basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. Class II prices also eased off from levels reached earlier in the crop year, the July average standing at \$2.11½, basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. Domestic prices remained at the I.W.A. level.

The initial price to producers (effective Aug. 1, 1951) was set at \$1.40 per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. Effective Feb. 1, 1952, the initial price was increased to \$1.60 per bu. with adjustment payments of 20 cents per bu. to be paid on all wheat delivered by producers between Aug. 1, 1951, and Jan. 31, 1952.

Other Grains.—*Supply and Disposition.*—Data on the supplies and disposition of the major Canadian grain crops for the crop years 1949-50 and 1950-51 are set out in Table 2. Despite increased exports of oats and barley in 1950-51 the carryover

of these grains at July 31, 1951, was at a high level. Exports of barley in 1951-52 set a record of 69,900,000 bu. and oats exports, at 69,600,000 bu., were the third largest on record. However, the 1951 crops were large and despite heavy disappearance, further increases in crop-year-end carryovers occurred.

Carryovers of rye and of flaxseed were at a low ebb at July 31, 1951. The 1951 crops of these grains, however, were larger than in 1950 and exports for the 1951-52 crop year were not heavy. As a result, carryover stocks of rye and of flaxseed at July 31, 1952, were more than double those at the beginning of the crop year.

2.—Distribution of Canadian Grain Crops, Crop Years Ended July 31, 1950 and 1951

(Millions of bushels)

Item	Wheat	Oats	Barley	Rye	Flaxseed
Carryover Aug. 1, 1949.....	102.4	60.5	29.7	11.9	10.7
Production in 1949.....	371.4	317.9	120.4	10.0	2.3
Imports ¹	²	0.4	0.1	²	²
Totals, Supply.....	473.8	378.8	150.2	21.9	13.0
Exports ¹	225.1	20.5	20.8	10.0	3.0
Consumed in Canada—					
Human food.....	47.1	5.2	0.2	0.1	²
Seed requirements.....	36.6	28.2	11.4	1.3	0.3
Industrial use.....	²	—	11.4	0.6	4.7
Loss in handling and drying.....	0.3	0.1	0.1	0.1	²
Animal feed and waste.....	52.5	279.9	86.0	3.4	0.5
Totals, Disposition.....	361.6	333.9	129.8	15.5	8.5
Carryover Aug. 1, 1950.....	112.2	44.9	20.4	6.4	4.5
Production in 1950.....	461.7	419.9	171.4	13.3	4.7
Imports ¹	²	1.0	²	²	0.9
Totals, Supply.....	573.9	465.9	191.8	19.8	10.1
Exports ¹	241.0	35.4	27.4	9.4	4.1
Consumed in Canada—					
Human food.....	51.1	5.2	0.2	0.1	²
Seed requirements.....	35.9	29.8	13.6	1.3	0.7
Industrial use.....	0.3	—	11.1	0.6	3.6
Loss in handling and drying.....	1.4	0.4	0.6	0.1	0.1
Animal feed and waste.....	55.0	300.0	85.4	5.1	0.4
Totals, Disposition.....	384.7	370.7	138.3	16.5	8.9
Carryover July 31, 1951.....	110.2	115.2	53.5	3.3	1.1

¹ Import and export data for wheat, oats, barley and rye, respectively, include flour in terms of wheat, rolled oats in terms of oats, malt in terms of barley and rye flour in terms of rye.

² Less than 50,000 bu.

Price and Marketing Arrangements.—With the outset of the 1949-50 crop-year, marketings of western oats and barley were brought under compulsory marketing pools operated by the Canadian Wheat Board. A voluntary pool for Western flaxseed was also provided during 1949-50 but open market prices remained well above the initial pool price and little flax was marketed through the pool. Rye was handled entirely through private trade channels.

Initial payments to producers were made for oats on the basis of 65 cents per bu. for No. 2 C.W. in store Fort William-Port Arthur, with price differentials established for other grades. At the time of delivery, producers received the initial payment, less freight and other handling charges to the Lakehead. After the close of the crop year, surpluses accumulated by the Board on the sale of oats during 1949-50 were distributed among producers. The payments averaged about 19.5 cents per bushel for the principal grades.

Marketing arrangements for barley during 1949-50 were similar to those for oats. Initial payments were made on the basis of 93 cents per bu. for No. 3 C.W. 6-row in store Fort William-Port Arthur. Final payments, after the close of the pool, averaged about 57 cents per bu. on malting grades and from 44.5 to 47 cents per bu. for feed barley.

In 1950-51 the Canadian Wheat Board continued the compulsory pooling arrangement and the initial payments for the basic grades were unchanged from 1949-50. Later in the season the initial payments were increased by 10 cents and 20 cents for oats and barley, respectively. After the close of the 1950-51 oats pool a final payment was made averaging 9.411 cents per bu. The final payment for No. 2 C.W. oats was 9.71 cents per bu., making the total return to producers for this grade 84.71 cents per bu., basis in store Lakehead. The final payment on the barley pool averaged 18.1 cents per bu. and for No. 3 C.W. 6-row it was 20.882 cents per bu., making the total return to producers on this grade \$1.33882 per bu., basis in store Lakehead.

In 1951-52 the basic initial payment for oats was again set at 65 cents per bu. for No. 2 C.W. in store Lakehead. The basic initial price for barley was increased to 96 cents per bu. for No. 3 C.W. 6-row in store Lakehead. Effective Mar. 1, 1952, initial payment on all grades of Western barley was increased by 20 cents per bu. and adjustment payments were made on all barley delivered to the Board between Aug. 1, 1951, and Feb. 29, 1952. Final payments on the 133,135,187 bu. of oats, delivered to the Board during the 1951-52 crop year, averaged 18.587 cents per bu. The final payment on No. 2 C.W. oats was 18.614 cents per bu., making total payments for this grade 83.614 cents per bu. Final payments on the 130,634,822 bu. of barley, delivered to the Board during the 1951-52 crop year, averaged 14.729 cents per bushel. On No. 3 C.W. 6-row barley, final payment was 13.2 cents per bu., making total payments for this grade \$1.292 per bu. With the exception of the voluntary flaxseed pool operated by the Board in 1949-50, no special marketing plans were in effect for rye and flaxseed and all dealings in these grains were handled by private trade.

Subsection 2.—Miscellaneous Grain Trade Statistics

Grain Handled at Eastern Elevators.—The amount of grain handled by eastern elevators during the ten crop years ended July 31, 1942-51, is shown in Table 3.

3.—Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1942-51

NOTE.—Figures for the crop years ended 1922-29 are given at p. 626 of the 1931 Year Book; for 1930-36 at p. 512 of the 1943-44 edition; and for 1937-41 at p. 816 of the 1947 edition.

Item and Crop Year	Wheat	Oats	Barley	Rye	Flaxseed	Total Grain
	bu.	bu.	bu.	bu.	bu.	bu.
Receipts—						
1942.....	282,400,393	5,468,716	7,240,814	785,929	1,912,528	297,808,380
1943.....	219,652,250	9,785,401	5,278,318	458,978	1,244,032	236,418,979
1944.....	254,389,628	18,838,600	20,806,305	739,090	752,512	295,526,135
1945.....	365,444,773	44,726,587	27,047,192	2,632,303	1,869,128	441,719,983
1946.....	318,075,743	70,013,103	30,789,084	1,938,882	3,669,449	424,486,261

3.—Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1942-51 —concluded

Item and Crop Year	Wheat	Oats	Barley	Rye	Flaxseed	Total Grain
	bu.	bu.	bu.	bu.	bu.	bu.
Receipts—concluded						
1947.....	255,286,775	63,764,776	22,719,533	5,663,823	1,302,023	348,736,930
1948.....	196,718,272	38,842,320	27,560,650	17,543,967	6,234,436	286,899,645
1949.....	255,213,214	30,407,034	34,320,228	8,750,556	14,906,168	343,597,200
1950.....	262,914,675	34,911,609	17,239,457	747,858	8,711,243	324,524,842
1951.....	208,580,769	30,631,192	35,781,508	5,763,488	7,522,620	288,289,577
Shipments—						
1942.....	282,022,653	5,377,665	5,658,168	777,623	1,873,895	295,710,004
1943.....	241,277,883	9,214,194	5,348,513	556,151	1,223,582	257,620,323
1944.....	248,581,173	17,221,335	17,164,441	829,960	628,979	284,425,888
1945.....	385,086,106	39,039,333	30,943,479	2,315,638	1,369,573	458,754,129
1946.....	338,462,187	70,460,215	28,472,958	2,432,487	3,727,565	443,555,412
1947.....	251,033,577	68,714,833	24,378,351	5,612,148	1,717,100	351,456,009
1948.....	206,061,315	39,805,551	26,847,608	17,647,367	5,551,788	295,913,629
1949.....	241,121,950	30,096,475	35,803,699	6,999,851	11,355,838	325,377,813
1950.....	251,853,362	33,140,216	18,139,086	1,553,094	11,743,926	316,429,684
1951.....	223,500,208	28,746,032	31,225,701	6,216,681	8,580,204	298,268,826

Grain Inspections.—Total inspections of Canadian grain in crop years 1949-50 and 1950-51 amounted to approximately 457,000,000 bu. and 491,000,000 bu., respectively. Increased 1950-51 inspections of oats and barley in the Western Division and of winter wheat in the Eastern Division account largely for the differences between the two years.

4.—Quantities of Grain Inspected, Crop Years Ended July 31, 1950 and 1951

Grain	1950			1951		
	Western Division	Eastern Division	Total	Western Division	Eastern Division	Total
	bu.	bu.	bu.	bu.	bu.	bu.
Spring wheat.....	300,430,610	—	300,430,610	302,793,176	—	302,793,176
Winter wheat.....	1,873,882	6,322,668	8,196,550	1,166,897	10,713,905	11,880,802
Totals, Wheat.....	302,304,492	6,322,668	308,627,160	303,960,073	10,713,905	314,673,978
Oats.....	75,857,964	17,640	75,875,604	85,068,699	228,497	85,297,196
Barley.....	50,388,980	93,219	50,482,199	70,873,451	20,753	70,994,204
Rye.....	9,354,771	188,781	9,543,552	7,710,460	181,322	7,891,782
Flaxseed.....	1,563,266	35,110	1,598,376	3,035,820	112,350	3,148,170
Buckwheat.....	9,029	81,312	90,341	25,556	203,526	229,082
Corn.....	331,700	6,446,944	6,778,644	62,622	5,002,963	5,065,585
Mixed grain.....	842,086	1,500	843,586	486,889	—	486,889
Soybeans.....	—	2,146,624	2,146,624	—	2,944,752	2,944,752
Beans.....	—	562,885	562,885	—	220,782	220,782
Totals, Grain.....	440,652,288	15,896,683	456,548,971	471,323,570	19,628,850	490,952,420

Lake Shipments of Grain.—Total shipments of grain from the Lakehead in the 1950-51 crop year were somewhat below the 1949-50 level. Approximately 21 p.c. of the 1950-51 shipments were routed to United States ports as compared with 16 p.c. in 1949-50.

**5.—Lake Shipments of Grain from Fort William and Port Arthur, Crop Years
Ended July 31, 1950 and 1951**

Grain	1949-50			1950-51		
	To Canadian Ports	To U.S. Ports	Total Shipments	To Canadian Ports	To U.S. Ports	Total Shipments
Wheat.....bu.	152,463,970	12,295,631	164,958,725 ¹	121,614,411	20,509,652 ²	142,242,652 ³
Oats....."	31,221,518	9,982,505	41,204,023	24,156,450	20,908,352	45,064,802
Barley....."	17,600,957	16,195,221	33,796,178	24,889,152	9,587,403	34,476,555
Rye....."	77,413	9,609,832	9,687,245	2,993,086	5,878,722	8,871,808
Flaxseed....."	4,262,164	—	4,280,260 ⁴	3,630,491	—	3,630,491
Mixed grain....."	7,578,240	—	7,578,240	1,064,690	—	1,064,690
Sample grain....."	29,974,789	—	29,974,789	32,086,333	—	32,086,333
Totals, Grain.....bu.	243,179,051	48,083,189	291,479,460	210,434,613	56,884,129	267,437,331
Screenings.....ton	11,538	83,218	94,756	5,619	47,366	52,985

¹ Includes 199,124 bu. to Europe direct.
118,589 bu. to Europe direct.

² Includes 534,618 bu. of U.S.A. wheat.
⁴ Includes 18,096 bu. to Europe direct.

³ Includes

Wheat Flour.—Canadian wheat flour production, which reached a peak of 28,600,000 bbl. in the crop year 1946-47, steadied in 1949-50 when mills reported an output of 20,300,000 bbl. or only 100,000 bbl. below that of the previous year. Exports of wheat flour (based on adjusted customs returns) for 1949-50 amounted to 10,200,000 bbl., equivalent to 50.2 p.c. of the same year's production. The percentage of milling capacity utilized for the crop year 1949-50 averaged 67.8 p.c. compared with 67.3 p.c. for the previous crop year.

Canadian flour mills reporting for 1950-51 registered a flour production of 23,600,000 bbl., an increase of about 3,400,000 bbl. over the output for 1949-50. Exports for 1950-51 amounted to 12,400,000 bbl., equivalent to 52.6 p.c. of the year's production. The percentage of milling capacity utilized for the crop year 1950-51 averaged 79.8 p.c., 12 p.c. above that of the previous crop year.

Section 2.—Live-Stock Marketings*

Marketings of cattle through public stockyards, packing plants and direct for export in 1951 totalled 1,601,156 head, a decrease of 13.8 p.c. from the previous year and a continuation of the downward trend evident since 1948. The decline was most pronounced in the Prairie Provinces. Quality of the output was higher than in 1950, as evidenced by the fact that choice and good heavy steers represented 9.4 p.c. of the total cattle in 1951 as compared with 6.3 p.c. in 1950. Reflecting the increase in heavy steers, the average carcass weight of all cattle slaughtered under inspection in 1951 was 23.5 lb. higher than in the previous year. Marketings of calves in 1951 declined 23 p.c. from the 1950 total. Hog marketings in 1951 were 4,897,116, an increase of 2.5 p.c. over 1950. An increase in the average weight of hogs marketed in 1951 lowered the percentage grading A and B1 for Canada to 73.0 lb. from 75.5 lb. in 1950. Sheep and lamb sales numbered 486,442 head, a decrease of 24 p.c. from the previous year and the lowest number recorded since 1926.

* For more detailed information see D.B.S. annual, *Live Stock and Animal Products Statistics*, and the Department of Agriculture publication, *Annual Market Review*. Statistics of live stock and poultry are given at pp. 420-422 and 429-432, respectively, of this volume.

6.—Live Stock Marketed at Public Stockyards, Packing Plants and direct for Export, by Provinces, 1950 and 1951

Live Stock	Maritime Provinces ¹	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	Total ¹
	No.	No.	No.	No.	No.	No.	No.	No.
1950								
Cattle—								
Totals to stockyards...	9,135	66,295	339,709	112,688	274,207	302,704	14,017	1,118,755
Direct to packers.....	22,674	67,989	162,168	61,040	73,847	119,221	36,060	542,999
Direct for export.....	2,632	13,133	99,744	735	15,510	41,908	7,334	180,996
Country points in other provinces ²	47	—	181	465	8,363	6,521	122	15,699
Totals, Cattle.....	34,488	147,417	601,802	174,928	371,927	470,354	57,533	1,858,449
Calves—								
Totals to stockyards...	19,421	110,980	129,016	40,632	70,019	78,584	1,806	450,458
Direct to packers.....	23,028	172,993	98,367	45,221	23,870	53,592	4,806	421,877
Direct for export.....	770	1,619	18,914	90	1,019	3,772	733	26,917
Country points in other provinces ²	3	—	—	105	4,061	1,773	—	5,942
Totals, Calves.....	43,222	285,592	246,297	86,048	98,969	137,721	7,345	905,194
Hogs—								
Totals to stockyards...	3,068	144,130	198,369	49,654	79,065	185,073	1,192	660,551
Direct to packers.....	186,586	870,649	1,829,058	216,479	200,180	775,535	36,519	4,115,006
Direct for export.....	348	5	725	60	1	1	24	1,164
Totals, Hogs.....	190,002	1,014,784	2,028,152	266,193	279,246	960,609	37,735	4,776,721
Sheep and Lambs—								
Totals to stockyards...	7,157	45,978	62,595	10,113	25,692	36,520	2,724	190,779
Direct to packers.....	36,576	105,990	97,278	21,091	10,790	59,283	21,915	352,923
Direct for export.....	138	52	6,761	69	3,681	68,323	374	79,398
Country points in other provinces ²	—	—	—	—	9,861	4,051	—	13,912
Totals, Sheep and Lambs.....	43,871	152,020	166,634	31,273	50,024	168,177	25,013	637,012
Total Inward Move- ment—³								
Cattle.....	111	1,421	106,411	6,073	16,151	67,248	1,318	198,733
Calves.....	—	459	16,299	854	2,779	14,487	943	35,821
Sheep and lambs.....	—	976	14,024	693	909	17,668	1,039	35,309
1951								
Cattle—								
Totals to stockyards...	8,671	53,636	321,611	96,435	233,157	283,930	21,804	1,019,244
Direct to packers.....	21,524	50,220	154,765	53,011	50,359	85,314	29,639	450,832
Direct for export.....	2,119	7,947	66,999	285	4,219	16,416	12,561	110,546
Country points in other provinces ²	—	—	79	185	10,963	8,210	1,097	20,534
Totals, Cattle.....	32,314	111,803	543,454	149,916	304,698	393,870	65,101	1,601,156
Calves—								
Totals to stockyards...	14,229	88,200	99,265	32,678	51,179	57,139	3,757	346,447
Direct to packers.....	13,519	161,792	82,677	31,486	13,768	34,906	4,413	332,561
Direct for export.....	404	429	7,858	—	975	604	207	10,477
Country points in other provinces ²	—	—	—	50	4,985	2,755	30	7,820
Totals, Calves.....	28,152	240,421	189,800	64,214	70,907	95,404	8,407	697,305
Hogs—								
Totals to stockyards...	1,663	128,692	176,808	61,549	87,459	159,377	1,020	616,568
Direct to packers.....	190,173	924,967	1,862,741	230,030	240,467	798,396	31,200	4,277,974
Direct for export.....	347	217	953	80	—	370	607	2,574
Totals, Hogs.....	192,183	1,053,876	2,040,502	291,659	327,926	958,143	32,827	4,897,116

For footnotes, see end of table.

6.—Live Stock Marketed at Public Stockyards, Packing Plants and direct for Export, by Provinces, 1950 and 1951—concluded

Live Stock	Maritime Provinces ¹	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total ¹
1951—concluded	No.	No.	No.	No.	No.	No.	No.	No.
Sheep and Lambs—								
Totals to stockyards...	5,511	34,853	53,806	9,073	19,689	36,062	2,584	161,578
Direct to packers.....	35,000	86,194	80,853	17,694	8,523	51,658	16,826	296,743
Direct for export.....	87	4	3,066	35	—	5,044	1,142	9,378
Country points in other provinces ²	—	—	—	—	13,338	4,160	1,245	18,743
Totals, Sheep and Lambs.....	40,598	121,041	137,730	26,802	41,550	96,924	21,797	486,442
Total Inward Movement²								
Cattle.....	258	2,357	114,586	11,595	19,689	93,216	2,508	244,209
Calves.....	9	1,680	26,768	3,292	4,082	20,155	1,035	57,021
Sheep and lambs.....	2	749	17,595	633	1,471	18,548	2,035	41,033

¹ Newfoundland figures not available. ² Live stock billed through stockyards to country points outside province of origin. ³ Movement from stockyards within each province to farms in the same province.

7.—Grades of Live Stock Marketed at Stockyards and Packing Plants, 1947-51

Live Stock	1947	1948	1949 ¹	1950 ¹	1951 ¹
	No.	No.	No.	No.	No.
Cattle—					
Steers up to 1,000 lb.—					
Choice.....	41,807 ²	33,869 ²	20,741	17,408	17,939
Good.....	96,981 ²	89,915 ²	74,388	60,215	52,887
Medium.....	116,110 ²	123,353 ²	129,457	86,186	72,181
Common.....	66,235 ²	81,030 ²	87,931	53,088	46,016
Steers over 1,000 lb.—					
Choice.....	78,978 ³	72,816 ³	64,104	43,036	57,754
Good.....	65,001 ³	64,838 ³	82,971	61,278	79,847
Medium.....	30,112 ³	31,968 ³	55,173	43,968	50,897
Common.....	4,173 ³	7,120 ³	14,842	11,426	14,233
Heifers—					
Choice.....	29,496	23,635	18,430	12,695	13,102
Good.....	82,250	85,002	73,475	58,955	59,040
Medium.....	92,746	114,580	112,728	100,877	88,187
Common.....	60,009	80,256	102,650	87,648	66,563
Fed Calves—					
Choice.....	18,107	25,791	104,520	94,944	77,993
Good.....	29,071	31,219			
Medium.....	37,504	43,936			
Cows—					
Good.....	122,639	155,947	542,288	566,075	444,858
Medium.....	108,560	143,700			
Common.....	83,837	120,764			
Canners and cutters.....	108,673	159,462			
Bulls—					
Good.....	24,465	31,951	93,378	107,388	93,360
Common.....	41,918	64,639			
Stocker and Feeder Steers—					
Good.....	56,441	92,454	170,167	196,569	182,164
Common.....	53,781	80,240			
Stock Cows and Heifers—					
Good.....	12,384	26,603	43,777	55,172	49,120
Common.....	8,704	16,589			
Milkers and Springers.....	8,417	8,028	5,346	4,826	3,935
Totals, Cattle.....	1,478,399	1,809,705	1,796,366	1,661,754	1,470,076

For footnotes, see end of table, p. 874.

**7.—Grades of Live Stock Marketed at Stockyards and Packing Plants,
1947-51—concluded**

Live Stock	1947	1948	1949 ¹	1950 ¹	1951 ¹
	No.	No.	No.	No.	No.
Calves—					
Veal—					
Good and choice.....	195,510	245,127	243,363	239,649	189,607
Common and medium.....	453,228	506,767	498,897	490,743	370,812
Grass.....	51,730	73,682	80,087	83,766	54,604
Stockers.....	4	4	14,963	58,177	63,985
Totals, Calves.....	700,468	825,576	837,310	872,335	679,008
Hog Carcasses—					
“A”.....	1,505,501	1,516,728	1,376,911	1,536,531	1,530,808
“B”.....	2,369,138	2,501,780	2,356,202	2,516,136	2,537,964
“C”.....	211,023	215,519	198,412	202,143	226,954
“D”.....	21,310	22,049	15,625	19,558	18,644
“E”.....	50,781	51,043	45,052	46,690	46,753
Heavies.....	103,089	92,666	85,714	77,992	109,890
Extra heavies.....	111,577	80,435	81,084	66,142	90,531
Lights.....	84,392	83,830	63,542	85,364	79,691
Sows.....	299,160	203,810	206,713	225,001	253,307
Totals, Hog Carcasses.....	4,755,971	4,767,860	4,429,255	4,775,557	4,894,542
Lambs and Sheep Graded Alive—					
Lambs—					
Good handyweights.....	507,450	407,926	400,742	289,571	253,050
Good heavies.....	18,207	24,119			
Common.....	118,431	101,409	76,032	63,901	56,893
Bucks.....	49,031	51,966	53,688	84,084	56,745
Feeders.....	4	4	9,681	9,745	13,381
Sheep—					
Good heavies.....	38,571	25,941	65,936	44,985	31,898
Good handyweights.....	94,339	79,312			
Common.....	51,026	41,011	29,971	27,661	24,528
Totals, Lambs and Sheep.....	877,055	731,684	636,050	519,947	436,495
Lamb and Sheep Carcasses—					
Lambs—					
“A”.....	9,371	8,948	9,197	9,843	10,133
“B”.....	5,394	4,589	5,844	6,540	5,324
“C”.....	2,628	2,021	2,949	3,917	3,148
“D”.....	572	701	710	1,088	1,041
“E”.....	—	206	167	210	234
Sheep.....	3,634	3,053	1,952	2,157	1,946
Totals, Lamb and Sheep Carcasses.....	21,649	19,518	20,819	23,755	21,826

¹ Newfoundland figures not available.² Steers up to 1,050 lb.³ Steers over 1,050 lb.⁴ Included with other grades.

Section 3.—Warehousing and Cold Storage*

Warehousing ranks high among the means by which the utilities of ‘place’, ‘time’ and ‘possession’ are added to the products of industry. Its importance has been emphasized in modern times because of the introduction of cold-storage methods to the conservation of perishable foods.

* The material in this Section was supplied by various Divisions of the Departments of Agriculture, Fisheries, Mines and Technical Surveys, National Revenue and of the Dominion Bureau of Statistics.

The great difficulty in presenting warehousing statistics lies in the fact that it is not an easy matter to define clearly what are to be regarded as stocks in storage. In these days of complicated business relationships and especially since the rise of the department store and chain store as characteristic institutions in the retail merchandising field, it often happens that warehousing is carried on in close relationship with merchandising. However, if the strict economic definition of warehousing is adopted then this term should be restricted to those facilities that add the utility of 'time' to the 'form' utilities that are the product of the extraction and manufacturing industries. Since the warehouses established in close connection with retail trade are more often than not convenient places for the temporary storage of goods in process of transfer from the manufacturer or wholesaler to the consumer, then they are not, in the strict economic sense, services which add the utility of 'time' to commodities already worked up into 'form'. At least, since some clear line must be drawn and because separate statistics of this branch of storage are not available, it is considered practicable to interpret warehousing in this way.

The statistics of warehousing are shown together under one general heading in this Section. Subsection 1 presents statistics of the licensed storage of grain. Subsection 2 deals with cold-storage facilities without which perishable foods such as meats, dairy products, fish and fruits could not be exchanged or distributed on a wide scale; it includes also figures of stocks of food on hand. Subsection 3 deals with the storage of petroleum and its products and Subsection 4 with public warehouses and customs warehouses. The facilities that specialize in the storage of tobacco and alcoholic liquors are analysed in Subsection 5. These bonded warehouses, as they are called, are under the strict surveillance of Federal Government excise officers who supervise all movements into and from such places of storage.

Subsection 1.—Licensed Grain Storage

At Dec. 1, 1951, total licensed grain storage capacity in Canada stood at 526,000,000 bu., an increase of 20,000,000 bu. from the level of Dec. 1, 1950. Licensed grain storage capacity reached a peak of 603,000,000 bu. at Dec. 1, 1943, but, following the disposal of heavy war-time stocks, declined to 482,000,000 bu. at Dec. 1, 1947. Since then licensed capacity has increased each year.

In recent years strong export and domestic demand has prevented the accumulation of unduly large stocks of grain. Heavy crops, however, were harvested in 1950 and 1951, and with adverse harvesting weather in both seasons the normal flow of grain to foreign and domestic points of consumption was impeded. The proportion of licensed grain storage capacity occupied accordingly moved upward. At July 31, 1950, 22 p.c. of licensed capacity was utilized. A year later the proportion had risen to 39 p.c. and, at Mar. 27, 1952, more than 52 p.c. of licensed capacity was in use.

8.—Licensed Grain Storage Capacity and Grain in Store, 1950-51 and 1951-52

NOTE.—These figures, being exclusive of stocks in transit or in eastern mills, are lower than those shown in Table 18, p. 419.

Year and Storage	Capacity Dec. 1, 1950	Grain in Store July 31, 1950	Capacity Occupied	Grain in Store Nov. 30, 1950	Capacity Occupied	Grain in Store Mar. 29, 1951	Capacity Occupied
	'000,000 bu.	'000 bu.	p.c.	'000 bu.	p.c.	'000 bu.	p.c.
1950-51							
Western country elevators....	279	32,038	11.5	167,619	60.1	159,355	57.1
Interior, private and mill....	21	6,487	30.9	8,332	39.7	7,645	36.4
Interior terminals.....	21	2,638	12.6	7,835	37.3	10,891	51.9
Pacific coast.....	22	12,471	56.7	10,329	47.0	3,848	17.5
Fort William-Port Arthur....	82	25,129	30.6	45,809	55.9	64,909	79.2
Georgian Bay and Upper Lake ports.....	33	10,153	30.8	9,870	29.9	6,137	18.6
Lower lake and Upper St. Lawrence ports.....	19	7,968	41.9	7,700	40.5	3,386	17.8
Lower St. Lawrence ports....	25	15,598	62.4	5,937	23.7	1,952	7.8
Maritime ports ¹	5	2	²	737	14.7	2,394	47.9
Totals, 1950-51.....	506	112,483	22.2	264,169	52.2	260,516	51.5
	Capacity Dec. 1, 1951	Grain in Store July 31, 1951	Capacity Occupied	Grain in Store Nov. 29, 1951	Capacity Occupied	Grain in Store Mar. 27, 1952	Capacity Occupied
	'000,000 bu.	'000 bu.	p.c.	'000 bu.	p.c.	'000 bu.	p.c.
1951-52							
Western country elevators....	290	100,614	34.7	150,214	51.8	142,709	49.2
Interior, private and mill....	21	7,283	34.7	8,344	39.7	9,229	43.9
Interior terminals.....	21	12,505	59.5	12,833	61.1	13,228	63.0
Pacific coast.....	22	3,791	17.2	8,886	40.4	13,036	59.3
Fort William-Port Arthur....	91	55,705	61.2	40,608	44.6	71,493	78.6
Georgian Bay and Upper Lake ports.....	33	9,450	28.6	14,442	43.8	9,293	28.2
Lower lake and Upper St. Lawrence ports.....	19	6,545	34.4	7,458	39.3	4,283	22.5
Lower St. Lawrence ports....	25	5,767	23.1	10,617	42.5	8,607	34.4
Maritime ports ¹	5	1,978	39.6	216	4.3	3,086	61.7
Totals, 1951-52.....	526	203,639	38.7	253,617	48.2	274,964	52.3

¹ Excludes Newfoundland.

² Less than 0.05 p.c.

Subsection 2.—Cold Storage and Storage of Foods

Cold Storage Warehouses.—Under the Cold Storage Act (R.S.C. 1927, c. 25), as amended June 18, 1952, subsidies have been granted by the Federal Government to encourage the construction and equipment of cold storage warehouses open to the public. The Act and Regulations made thereunder are administered by the Department of Agriculture.

There are five classifications of cold storage warehouses in Canada: (1) public warehouses which store foods and food products and of which the entire space is open to the public; (2) semi-public, or those which store foods and food products and which, while retaining part of the space for the products of the owner, allot the remainder to the public; (3) private or those which store foods and food products and allot no space to the public. Included in this classification is the refrigerated space in connection with abattoirs, creameries, dairies, cheese factories and wholesale and retail distributing warehouses; (4) locker plant, where the total space is occupied by lockers for rental to the public and which may, in addition, cut,

process, chill and freeze foods and food products for storage in lockers; and (5) bait depots, having space used solely or principally for freezing and storing bait for use of fishermen.

No hard and fast rule can be laid down for distinguishing between public and private warehouses. In general, those owned and operated by firms trading in the goods stored in the warehouse are designated 'private', though most of these places rent space to the public when it is not required for their own purposes.

9.—Cold-Storage Warehouses, by Provinces, Year Ended Mar. 31, 1952

Province	Subsidized Public Warehouses				All Warehouses	
	Number	Refrigerated Space	Cost	Total Subsidy	Number	Refrigerated Space
		cu. ft.	\$	\$		cu. ft.
Newfoundland.....	—	—	—	—	52	1,606,968
Prince Edward Island.....	7	267,684	142,683	42,349	24	425,200
Nova Scotia.....	20	4,985,083	4,000,575	1,190,892	77	5,655,109
New Brunswick.....	7	1,403,329	728,296	218,489	47	2,089,402
Quebec.....	30	1,455,934	1,729,994	516,251	248	15,511,462
Ontario.....	57	9,092,783	6,027,878	1,802,339	883	30,369,266
Manitoba.....	7	2,967,088	2,021,865	606,559	164	9,569,016
Saskatchewan.....	14	587,162	587,340	176,202	247	4,300,273
Alberta.....	5	624,925	475,876	142,347	201	6,840,758
British Columbia.....	64	22,599,926	9,384,775	2,815,429	174	29,492,738
Totals.....	211	43,983,914	25,099,281	7,510,859	2,117	105,860,192

10.—Storage and Refrigerated Space, by Provinces, as at June 30, 1952

Class of Storage	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
Public—					
Warehouses..... No.	—	14	26	12	53
Refrigerated Space—					
Freezer..... cu. ft.	—	195,087	1,237,272	994,850	4,056,950
Cooler..... "	—	29,342	3,417,447	649,198	6,511,378
Locker..... "	—	43,520	15,668	20,706	12,894
Private—					
Warehouses..... No.	29	9	47	34	181
Refrigerated Space—					
Freezer..... cu. ft.	1,152,555	46,541	711,243	305,711	973,373
Cooler..... "	106,008	109,475	229,119	98,798	3,771,625
Locker..... "	—	—	4,600	469	—
Bait Depots—					
Warehouses..... No.	21	1	2	1	—
Refrigerated Space—					
Freezer..... cu. ft.	289,905	965	15,744	15,053	—
Cooler..... "	750	270	—	4,617	—
Locker..... "	2,700	—	—	—	—
Locker Plants—					
Warehouses..... No.	2	—	2	—	14
Refrigerated Space—					
Freezer..... cu. ft.	—	—	8,700	—	66,022
Cooler..... "	—	—	3,296	—	35,232
Locker..... "	55,050	—	12,020	—	83,988
Totals, Warehouses..... No.	52	24	77	47	245
Totals, Refrigerated Space..... cu. ft.	1,606,968	425,200	5,655,109	2,089,402	15,511,462

10.—Storage and Refrigerated Space, by Provinces, as at June 30, 1952—concluded

Class of Storage	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Total
Public—						
Warehouses..... No.	137	15	22	13	76	368
Refrigerated Space—						
Freezer.....cu. ft.	4,821,301	3,997,173	561,234	469,148	4,992,672	21,325,687
Cooler....." "	12,249,547	1,444,055	701,282	323,975	21,892,160	47,218,384
Locker....." "	601,632	37,150	96,162	86,759	29,621	944,112
Private—						
Warehouses..... No.	378	60	75	48	26	887
Refrigerated Space—						
Freezer.....cu. ft.	2,464,747	648,328	607,305	1,816,029	377,678	9,103,510
Cooler....." "	6,893,767	2,716,221	1,233,511	3,067,050	1,023,455	19,249,029
Locker....." "	63,774	—	20,734	11,985	—	101,562
Bait Depots—						
Warehouses..... No.	—	—	—	—	—	25
Refrigerated Space—						
Freezer.....cu. ft.	—	—	—	—	—	321,667
Cooler....." "	—	—	—	—	—	5,637
Locker....." "	—	—	—	—	—	2,700
Locker Plants—						
Warehouses..... No.	368	89	150	140	72	837
Refrigerated Space—						
Freezer.....cu. ft.	482,890	53,726	28,677	29,385	103,977	773,377
Cooler....." "	708,850	138,960	258,163	248,252	157,548	1,550,301
Locker....." "	2,082,758	533,403	793,205	788,175	915,627	5,264,226
Totals, Warehouses. No.	883	164	247	201	174	2,117
Totals, Refrigerated Space.....cu.ft.	30,369,266	9,569,016	4,300,273	6,840,758	29,492,738	105,860,192

11.—Stocks of Food Commodities on Hand in Cold-Storage and Other Warehouses and in Dairy Factories, as at Jan. 1, 1951

NOTE.—Total stocks include imported and in-transit stocks.

Item	As at Jan. 1	Minimum During Year	Date at which Minimum Occurred	Maximum During Year	Date at which Maximum Occurred	Twelve- month Average
Butter, Creamery, Dairy and						
Whey—						
In storage.....'000 lb.	39,029	8,267	Apr. 1	65,278	Nov. 1	35,689
Total stock....." "	39,319	9,842	Apr. 1	66,416	Nov. 1	36,658
Cheese, Factory—						
In storage....." "	26,559	17,298	May 1	40,516	Oct. 1	28,772
Total stock....." "	28,053	18,106	May 1	45,012	Oct. 1	30,736
Evaporated Whole Milk—						
Total stock....." "	25,262	7,701	Apr. 1	69,481	Oct. 1	38,277
Skim-Milk Powder—						
Total stock....." "	2,857	1,786	Mar. 1	10,614	Nov. 1	5,897
Eggs, Shell—						
In storage.....'000 cases	42	42	Jan. 1	253	June 1	141
Total stock....." "	44	44	Jan. 1	258	June 1	145
Eggs, Frozen—						
In storage.....'000 lb.	6,821	3,945	Apr. 1	7,067	Sept. 1	5,590

Includes imported butter.

11.—Stocks of Food Commodities on Hand in Cold-Storage and Other Warehouses and in Dairy Factories, as at Jan. 1, 1951—concluded

Item	As at Jan. 1	Minimum During Year	Date at which Minimum Occurred	Maximum During Year	Date at which Maximum Occurred	Twelve-month Average
Poultry, Dressed—						
In storage..... '000 lb.	19,614	7,837	July 1	30,701	Dec. 1	14,823
Total stock..... "	19,726	7,963	July 1	31,337	Dec. 1	15,033
Pork, Fresh—						
In storage..... "	3,781	2,873	Oct. 1	6,347	Dec. 1	4,565
Pork, Frozen—						
In storage..... "	13,357	5,812	Oct. 1	28,866	June 1	17,345
Pork, Cured and in Cure—						
In storage..... "	14,154	11,219	Oct. 1	18,335	Dec. 1	14,425
Lard—						
In storage..... "	3,385	2,898	Nov. 1	6,434	June 1	4,528
Beef, Fresh—						
In storage..... "	7,189	6,907	Apr. 1	9,852	Nov. 1	8,439
Beef, Frozen—						
In storage..... "	14,447	6,095	Sept. 1	14,583	Dec. 1	9,767
Beef, Cured, etc.—						
In storage..... "	538	281	Aug. 1	678	Feb. 1	435
Veal—						
In storage..... "	3,356	1,766	Apr. 1	5,231	Nov. 1	3,685
Mutton and Lamb—						
In storage..... "	3,894	654	Aug. 1	3,894	Jan. 1	1,880
Fruit—						
Apples, Fresh—						
In storage..... '000 bu.	6,101	267	June 1	7,107	Nov. 1	3,640
Frozen Fruit—						
In storage..... '000 lb.	16,545	10,751	June 1	24,790	Oct. 1	17,554
In Preservation—						
In storage..... "	16,496	10,893	July 1	16,496	Jan. 1	14,064
Potatoes—						
In storage..... '000 bu.	19,720	3,489	June 1	19,720	Jan. 1	12,730

Cold Storage of Fish.—Stocks of frozen fish were at practically the same level in 1951 as in 1950. Normally, stocks decrease gradually during the first months of the year and reach a low point about May 1; during subsequent months they increase and reach a peak at the beginning of November. Since the great bulk of the frozen-fish production takes place during the summer and early autumn months, stocks piled up in that period form the main supply of frozen products until the heavy production period of the next summer. Stock figures at the beginning of each month in 1950 and 1951 (including Newfoundland) were as follows:—

Month	1950	1951	Month	1950	1951
	('000,000 lb.)			('000,000 lb.)	
Jan. 1.....	41.5	46.5	Aug. 1.....	49.3	43.2
Feb. 1.....	34.1	39.0	Sept. 1.....	55.8	49.3
Mar. 1.....	27.6	31.5	Oct. 1.....	58.2	51.0
Apr. 1.....	20.0	25.3	Nov. 1.....	61.4	57.8
May 1.....	18.7	25.2	Dec. 1.....	55.0	50.6
June 1.....	33.0	35.7			
July 1.....	41.6	38.0	AVERAGE.....	41.3	41.1

Although total figures showed little change in 1951 compared with 1950, a few individual items registered variation. Monthly stocks of halibut were significantly higher in 1951. The halibut fishing season began with a carryover from the preceding season and hence production diminished on the East Coast; however, landings in British Columbia were high enough to maintain the heavy inventories throughout the remainder of the year. A low herring catch on the Atlantic Coast resulted in low stocks. Also, the high demand for cod fillets, frozen fresh, left stocks of that product at a low level even though production was slightly higher than in 1950.

Average monthly holdings of the main fish products in 1950 and 1951 (including Newfoundland) were as follows:—

<i>Group and Main Products</i>	1950	1951
	'000,000 lb.	
FROZEN FRESH SEA FISH—		
Salmon, Pacific, dressed and filleted.....	7.3	7.6
Halibut, Pacific, dressed.....	5.9	7.4
Herring, Atlantic, round.....	7.9	5.4
Cod, Atlantic, filleted.....	3.8	2.5
TOTALS, FROZEN FRESH SEA FISH¹.....	35.6	34.7
FROZEN FRESH INLAND FISH—		
Whitefish, dress and filleted.....	1.0	1.4
Tullibee, round or dressed.....	0.5	0.5
Pickrel (yellow pike), dressed and filleted.....	0.3	0.3
TOTALS, FROZEN FRESH INLAND FISH¹.....	3.2	3.6
FROZEN SMOKED FISH—		
Cod, Atlantic, filleted.....	1.4	1.7
Sea herring, dressed.....	0.7	0.6
Haddock, dressed.....	0.2	0.2
TOTALS, FROZEN SMOKED FISH¹.....	2.5	2.8
GRAND TOTALS.....	41.3	41.1

¹ Totals include other items not listed.

Cold Storage of Dairy Products.—Cold-storage facilities are a necessary adjunct in the manufacture of dairy products since most of them are perishable to a varying degree.

All creameries have facilities for the storing of butter, the size and type of storage depending on the size of the creamery. If the butter produced at small country plants is not printed for immediate sale, the butter solids are disposed of or are transported to larger creameries where better refrigeration is available or to private or public cold storages in the larger urban centres.

In the case of cheese, temperature control is important in the curing process as well as in the prevention of deterioration. Most cheese factories are equipped with mechanical refrigeration and are required to have storage capacity for 17 days' produce during the period of maximum manufacture. The cheese is then transferred to central warehouses.

Milk, as soon as it is bottled, is placed in storage and held until delivery. Dry whole milk and other dried milk products containing fat are usually stored in cool air chambers to prevent rancidity.

Cold Storage of Other Foods.—The marketing of the Canadian apple crop has undergone quite drastic changes in recent years. In pre-war years, and to some extent during the War, it was customary to export a substantial proportion of the crop early in the season to the United Kingdom and the European Continent. This

limited the necessity of long-term cold storage to that portion retained for domestic distribution and other export. The curtailment in export outlets during the post-war years has necessitated greater long-term cold-storage capacity in order to extend the marketing period for a much larger proportion of the crop. The degree to which cold-storage facilities have increased is illustrated by a comparison of the holdings on Dec. 1, the beginning of the storage season. During the years 1943-47, the Dec. 1 stocks averaged 53 p.c. in cold storage and 47 p.c. in common storage. The average for the two years 1950 and 1951 was 83 p.c. in cold and only 17 p.c. in common storage. Additional space under construction will maintain or increase the proportion of cold storage in future years.

Potatoes are generally held at production points and shipped out as needed throughout the season. While warehouse storage is quite common in parts of Prince Edward Island, Nova Scotia and New Brunswick, where commercial production is centred, most of the crop is stored in frost-proof cellars and pits.

Subsection 3.—Storage of Petroleum and Petroleum Products

Bulk storage plants for petroleum and petroleum products are established at convenient distributing centres and usually on a water-front so that full advantage can be taken of the lower cost of water-borne traffic. From these centres the goods are transferred by boat, rail or truck to smaller distributing depots or directly to retail outlets. The principal refining and distributing centres are located at or near Halifax, Quebec, Montreal, Ottawa, Toronto, Sarnia, Fort William, Regina, Calgary, Turner Valley, Edmonton and Vancouver.

12.—Inventories of Petroleum and Petroleum Products in Storage at Jan. 1, 1948-52

(Barrels of 35 Imperial gallons)

NOTE.—Figures for 1940-47 are given at p. 852 of the 1950 Year Book.

Product	1948	1949	1950	1951	1952
	bbl.	bbl.	bbl.	bbl.	bbl.
Refinery Inventory—					
Crude oil.....	4,078,981	6,117,447	6,002,321	5,097,114	8,183,535
Naphtha specialties.....	106,779	86,316	114,638	157,366	154,238
Aviation gasoline.....	177,363	193,390	257,231	277,815	293,181
Motor gasoline.....	2,751,788	3,006,822	3,952,265	4,258,825	4,939,681
Tractor distillate.....	112,323	139,541	171,549	78,473	63,190
Aviation turbine fuel.....	...	...	...	...	21,409 ¹
Kerosene.....	...	564,083	291,315	120,305	166,497
Stove oil (No. 1 fuel oil).....	1,550,944	1,009,457	964,165	836,879	1,081,484
Furnace oil.....	2,399,507	2,298,386	1,782,285	1,952,317	2,837,202 ²
Other light fuel oil.....	...	...	...	...	285,151 ²
Heavy fuel oil (Nos. 4, 5 and 6).....	1,780,705	2,844,433	1,662,863	2,154,406	2,822,711
Diesel fuel.....	...	969,423	704,619	1,140,751	1,254,012
Asphalt.....	510,394	550,074	533,897	444,725	771,135
Coke (petroleum).....	25,331	28,154	70,272	33,384	32,011
Lubricating oil.....	153,103	236,285	253,655	197,905	221,854
Grease, wax and candles.....	23,128	18,740	13,673	24,818	12,131
Other products.....	3,206	19,137	6,945	7,026	22,856
Marketing Inventory—					
Naphtha specialties.....	64,057	74,665	91,081	78,209	101,251
Aviation gasoline.....	104,975	403,662	439,888	653,727	689,791
Motor gasoline.....	3,832,932	4,197,718	4,830,869	5,377,851	5,998,086
Tractor distillate.....	129,588	120,568	99,462	40,376	33,275
Aviation turbine fuel.....	...	...	...	...	64,404 ¹
Kerosene.....	737,283	291,580	218,472	196,389	199,786
Stove oil (No. 1 fuel oil).....	...	574,249	648,856	908,832	1,108,932
Furnace oil.....	2,133,050	1,851,732	1,811,680	3,363,424	3,647,111 ²
Other light fuel oil.....	...	...	...	...	120,254 ²
Heavy fuel oil (Nos. 4, 5 and 6).....	824,206	1,080,053	937,094	1,139,657	1,422,627
Diesel fuel.....	...	969,755	882,387	813,369	1,060,171

¹ Not classified separately prior to 1952.

² Included under light fuel oils prior to 1952.

Subsection 4.—General Warehousing

Public Warehouses.—The Dominion Bureau of Statistics, in 1944, began an annual census of the principal public warehouses in Canada. Warehousing carried on by co-operatives, packing houses and other firms operating storage facilities in connection with their own businesses are not included. Also, some companies deriving more revenue from a moving, cartage or carrier business than from warehousing are not included but are covered in the D.B.S. report, *Motor Carriers, Freight-Passenger*. In order to show the trend in the industry, Table 13 has been prepared from data supplied by 141 firms that reported for both 1949 and 1950. Complete details are given in the D.B.S. report, *Warehousing, 1950*.

13.—Summary Statistics of 141 Public Warehousing Firms Reporting in 1949 and 1950

Item	1949	1950	Item	1949	1950
Total revenue..... \$	19,311,847	20,015,944	Wages, regular..... \$	5,699,109	5,969,210
Total operating expenses \$	16,599,245	17,136,136	Wages, casual..... \$	131,958	321,358
Net operating revenue.. \$	2,712,602	2,879,808	Salaried employees.. No.	999	1,023
Net income..... \$	1,631,089	1,630,439	Salaries..... \$	2,358,236	2,574,970
Employees, regular.... No.	2,878	2,843	Total salaries and wages..... \$	8,189,303	8,865,538
Employees, casual..... "	95	262			

Net occupiable space reported in 1950 by 164 firms comprised 34,748,232 cu. ft. for merchandise, 19,333,375 cu. ft. for household goods and 23,852,576 cu. ft. of cold-storage space. Merchandise space increased 3,600,000 cu. ft., household goods space 1,500,000 cu. ft., and cold storage space 1,500,000 cu. ft. over the total for 155 companies reporting in 1949.

Customs Warehouses.—Warehouses for the storage of imported goods are known as customs warehouses. These are divided into nine classes, as follows: (1) those occupied by the Federal Government, some of which are used for examination and appraisal of imported goods while others, known as Queen's Warehouses, are used for the storage of unclaimed, abandoned, seized or forfeited goods; (2) warehouses, consisting of an entire building or part thereof, properly separated from the rest of the building by a partition, which are used exclusively for the storage of imported goods consigned to the proprietor of the building; (3) buildings or parts of buildings properly partitioned off, used for the storage of imported goods consigned to the proprietor or others, or for the storage of unclaimed or seized goods; (4) sufferance warehouses operated by the owners of vessels for the storage of in-bond goods transported by water or air;* (5) yards, sheds and buildings intended for the storage of imported coal and coke; (6) farms, yards, sheds, etc., which an importer of horses or sheep intends to use for the feeding and pasturing of imported animals other than pure-bred mares; (7) warehouses for the storage of

* Railway and express companies have similar facilities.

animals, including horses for racing, and articles for exhibition or competition for prizes; (8) warehouses for clover seed imported for the purpose of being re-cleaned and prepared for a foreign market; and (9) yards, sheds, etc., which importers intend to use for the storage of goods too heavy or too bulky to be admitted to an established customs warehouse.

Subsection 5.—Bonded Warehousing and Storage of Wines

Bonded Warehousing.—The Excise Duty Branch of the Department of National Revenue considers any premises licensed under the Excise Act to be a warehouse, whether for storage of raw materials to produce finished tobacco or cigar products or for spirits or malt used for brewing. Practically the total production of spirits is placed in bonded warehouses while only a small part of the output of beer is retained in storage. Wine, unlike spirits and beer, is not secured under bond. All imports of alcoholic beverages must go through bonded warehouses before being released to Provincial Liquor Commissions or Boards, or other agencies authorized by the Commissions or Boards to take alcoholic beverages out of bond. Similarly, tobacco, cigars and cigarettes which are not stamped and duty paid are secured in bond. In addition to these warehouses, there are those in which no manufacturing or production is carried on, but which are being used solely for the storage of goods upon which duty has not been paid. Goods are stored in these warehouses usually for the purpose of rapid distribution and for delivery as ships' stores.

Spirits, Tobacco and Malt in Bond.—Table 14 shows the quantities of distilled liquor, tobacco, cigars and cigarettes in bond in recent years. The yearly inventory of breweries showed a decrease of total gallongage of beer in stock from 21,661,000 in 1950 to 20,756,358 in 1951.

14.—Distilled Liquor, Tobacco, Cigars and Cigarettes in Bond, Quarterly, 1948-52

Item and Quarter	1948	1949	1950	1951	1952
Distilled Liquor—					
March.....'000 pf. gal.	66,582	72,363	76,687	81,878	87,973
June....."	68,764	74,166	78,855	84,120	90,007
September....."	68,951	74,063	79,127	84,647	90,241
December....."	69,809	75,542	79,655	85,921	..
Tobacco, Unmanufactured—					
March.....'000 lb.	158,693	178,428	201,024	193,353	213,981
June....."	143,219	161,966	181,132	176,028	189,371
September....."	120,429	136,983	155,997	156,832	162,440
December....."	125,540	147,443	154,459	164,949	..
Tobacco, Manufactured—¹					
March.....'000 lb.	5	14	18	5	26
June....."	3	1	—	—	—
September....."	1	1	1	—	6
December....."	1	1	—	10	..
Cigars—					
March.....'000	1,513	3,336	2,416	2,072	3,330
June....."	2,760	3,727	2,277	2,007	2,761
September....."	1,147	2,730	1,302	804	1,110
December....."	657	1,050	303	857	..
Cigarettes at 3 lb. or under—²					
March.....'000	12,703	17,527	4,500	5,347	15,253
June....."	15,922	3,108	4,866	3,602	2,780
September....."	6,379	3,519	3,890	2,344	5,131
December....."	7,729	3,809	3,461	4,251	..

¹ Excludes Newfoundland.

In Table 15 the quantities of spirits, malt and tobacco products that have been released from bond for consumption are shown for the years 1943-52. These figures, supplied by the Department of National Revenue, are the most reliable data for the consumption of these bonded products.

15.—Spirits, Malt Liquor, Malt and Tobacco taken out of Bond for Consumption Years Ended Mar. 31, 1943-52

NOTE.—Figures for the years prior to 1900 are given in the 1916-17 Year Book, p. 528; for 1901-10 in the 1933 Year Book, p. 840; for 1911-21 in the 1938 Year Book, p. 355; for 1922-29 in the 1945 edition, p. 936; and for 1930-42 in the 1947 edition, p. 964.

Year	Spirits	Malt Liquor	Malt	Cigars	Cigarettes	Tobacco ¹
	gal.	gal.	lb.	No.	No.	lb.
1943.....	3,445,872	103,291,141	228,029,691	204,699,110	10,803,185,549	31,510,083
1944.....	2,620,297	97,192,032	219,242,999	196,407,845	11,405,842,655	32,264,175
1945.....	2,676,482	116,009,457	219,529,938	200,879,906	11,982,675,329	30,876,112
1946.....	4,087,690	134,579,706	259,083,043	210,694,900	14,512,351,682	31,048,195
1947.....	4,446,130	151,012,603	307,478,641	221,131,244	14,972,562,544	31,516,702
1948.....	4,632,506	169,485,610	335,232,688	215,434,810	15,263,987,385	30,187,676
1949.....	4,360,914	168,265,128	349,432,511	207,354,058	15,909,596,750	30,953,335
1950.....	4,608,926	172,650,886	349,681,927	200,746,672	17,507,977,020	30,615,128
1951.....	5,468,908	171,746,997	352,172,873	204,925,795	17,261,995,425	30,966,068
1952.....	4,552,336	179,774,614	351,119,068	164,061,235	14,814,071,510	31,843,677

¹ Includes snuff.

Storage of Wines.—The wine industry is confined to a few localities such as the Niagara Peninsula in Ontario and the Okanagan Valley in British Columbia. Firms manufacturing native wines are not bonded, as far as the Federal Government is concerned, nor is wine in storage for maturing placed in bond. The only goods warehoused in bond in connection with wineries are their sugar supplies and supplies of grape spirit distilled by the distilleries and held by the wineries for fortifying their wines. Native wine produced and placed in storage for maturing and blending for the years 1946-50 was reported as follows:—

Year	Ontario	Other Provinces	Total
1946.....gal.	5,056,564	476,917	5,533,481
.....\$	3,180,465	369,498	3,549,963
1947.....gal.	5,517,482	570,522	6,088,004
.....\$	3,871,623	424,567	4,296,189
1948.....gal.	4,377,487	661,134	5,038,621
.....\$	2,786,186	513,639	3,299,825
1949.....gal.	3,390,787	608,665	3,999,452
.....\$	2,240,481	492,678	2,733,159
1950.....gal.	5,383,514	501,330	5,884,844
.....\$	3,198,462	404,574	3,603,036

Section 4.—Merchandising and Service Establishments*

A complete coverage of the multiplicity of establishments making up Canada's distributive system is attempted only in the Censuses. Some studies were made in the late 1920's, but results were incomplete and the Censuses of 1931, 1941 and 1951 represent the only complete analyses of the merchandising and services fields. Vol. X of the Census reports for each year contains information on retail establishments, and comprehensive material on the extent of the wholesale and services trades appears in Vol. XI of the reports. Summary census statistics are presented at pp. 596-621 of the 1945 Year Book and at pp. 527-536 of the 1943-44 edition.

* Revised in the Merchandising and Services Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

Census results have been supplemented by statistical measurements, based mainly on sample surveys, of certain features of the distributive trades in other than census years. In an effort to meet the increasing needs of business, industry and government for information on the Canadian market, its nature and characteristics, considerable expansion and refinement of the statistical services has been carried out and plans are in progress to meet the requirements for information in greater geographical detail. Results of the Census of 1951 will be known in 1953 following a mail survey undertaken in 1952.

Subsection 1.—Wholesale Trade Statistics

Sales Indexes.—Indexes of wholesale trade sales date from 1935. Data are prepared from reports supplied by a sample of firms in nine principal trades. The reporting panel is confined to wholesalers proper, i.e., those establishments that perform the complete functions of wholesalers and jobbers, buying merchandise in large quantities on their own account and selling principally to retailers in broken lots. The individual kinds of wholesale business for which results are compiled are those that handle the more common types of consumer merchandise.

Wholesale sales in Canada for the nine trades surveyed were 10 p.c. higher in 1951 than in 1950 and 239 p.c. above the average annual sales for the same trades in the base period 1935-39. The average index of sales for 1951 stood at 338.6 compared with 307.3 in 1950 and 142.0 for 1941. These indexes represent increases in dollar volume of sales and are not adjusted for price changes.

All provinces recorded increased sales in 1951 over 1950, with British Columbia and Ontario showing gains in excess of 10 p.c. Wholesalers' sales of automotive equipment showed the largest increase over 1950 with a gain of 19 p.c.; wholesalers' sales of footwear advanced 16 p.c. and of hardware 13 p.c. Other trades registered increased sales ranging down to 1 p.c.

16.—Annual Indexes of Wholesale Trade Sales by Economic Areas and by Kinds of Business, 1941-51

(1935-39=100. Exclusive of Newfoundland)

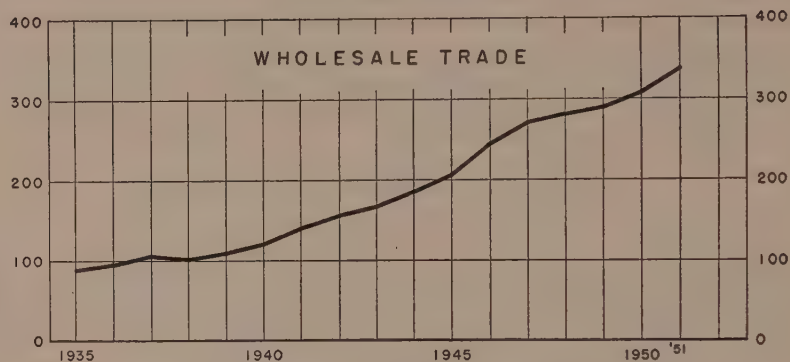
Economic Area and Kind of Business	1944	1945	1946	1947	1948	1949	1950	1951	P.C. Change 1950-51
Maritime Provinces.....	217.0	235.0	257.6	282.3	290.4	285.2	296.6	320.6	+ 8.1
Quebec.....	176.9	191.5	223.4	255.5	263.1	258.1	274.4	296.4	+ 8.0
Ontario.....	183.6	206.9	245.9	275.8	287.7	299.6	315.8	349.3	+10.6
Prairie Provinces.....	183.1	198.2	243.6	261.1	273.5	294.5	307.8	337.0	+ 9.5
British Columbia.....	199.0	226.5	271.9	314.6	333.8	332.1	351.4	404.5	+15.1
Totals, Wholesale Trade.	186.0	205.4	244.0	272.0	283.2	291.3	307.3	338.6	+10.2
Automotive equipment...	197.2	242.8	334.0	369.8	379.9	397.6	429.4	509.3	+18.6
Drugs.....	201.9	222.1	245.2	254.6	281.8	305.5	312.2	348.4	+11.6
Clothing.....	183.1	186.3	229.3	255.4	265.1	248.2	248.0	253.0	+ 2.0
Footwear.....	188.8	224.0	279.4	300.8	286.8	281.9	283.0	328.8	+16.2
Dry goods.....	165.9	161.9	197.5	244.5	264.7	240.4	245.9	249.3	+ 1.4
Fruits and vegetables.....	222.0	262.4	291.2	274.7	237.2	263.0	271.4	290.9	+ 7.2
Groceries.....	169.3	180.2	208.9	244.2	254.0	257.0	275.0	305.0	+10.9
Hardware.....	183.8	212.0	277.4	325.0	359.7	374.9	404.5	455.5	+12.6
Tobacco and confectionery	230.1	258.1	296.9	317.1	354.8	372.8	381.4	411.9	+ 8.0

Operating Results of Wholesalers.—This wholesalers' survey is conducted on a biennial basis and latest available results are for 1949. These data were presented in the 1951 Year Book, pp. 846-847, and are not repeated in this edition.

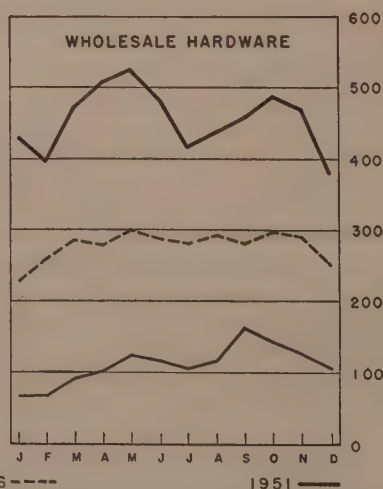
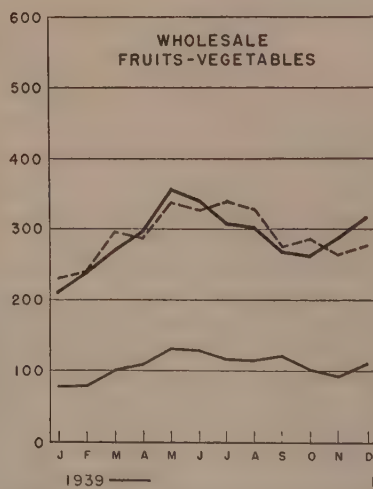
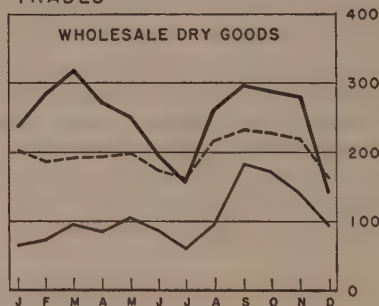
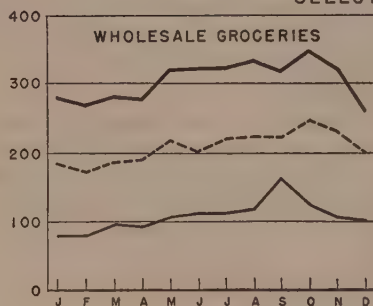
INDEXES OF WHOLESALE SALES

1935 - 39 = 100

ANNUAL INDEXES



MONTHLY INDEXES OF WHOLESALE SALES FOR SELECTED TRADES



1939 —

1946 - - -

1951 —

Subsection 2.—Retail Trade Statistics

From Canadian fields and farms, forests, mines, stockyards, factories and mills, from foreign lands through Canadian Atlantic and Pacific seaports, goods travel through innumerable channels to converge finally on the retail outlets before being dispersed again, but this time in small parcels made up to individual tastes for the consumer trade. Thus, the retailer occupies an important place between producer and consumer and, in a real sense, is the keystone of the distribution arch, for it is through retail outlets that every necessary operation of production for consumption is brought to its intended conclusion.

Retail Sales.—The volume of retail sales in Canada reached a peak in 1951 with total trade estimated at \$10,445,061,000, 10·3 p.c. higher than that attained in 1950 when sales totalled \$9,467,400,000. Corrections have not been made for changes in prices of consumer goods and dollar sales are, therefore, not indicative of changes in actual quantities of merchandise sold.

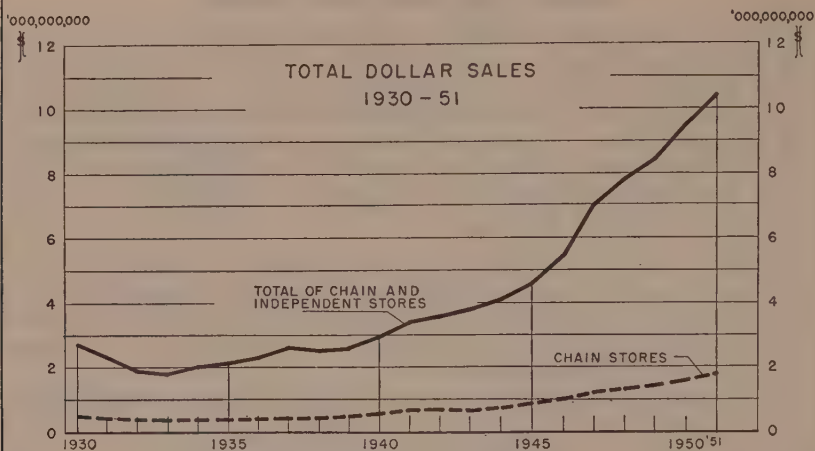
In 1951, motor-vehicle trade, with an aggregate volume of \$1,811,846,000, spearheaded the upward sales movement in recording a gain of 16·6 p.c. over 1950. Sales for grocery and combination grocery and meat stores amounted to \$1,877,672,000 and gained 15·0 p.c. over 1950. Department stores ranked third with a total of \$901,717,000 and a gain of 3·3 p.c. over the previous year. The majority of the remaining trades showed increased sales in 1951 over 1950 with country general stores, variety stores and garages and filling stations in excess of 10 p.c. Estimated sales were lower in 1951 for furniture, appliance and radio, and jewellery stores.

All provinces recorded increased sales volumes in 1951, Saskatchewan showing the greatest gain at 12·3 p.c. above 1950.

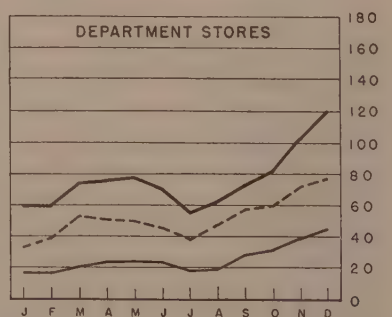
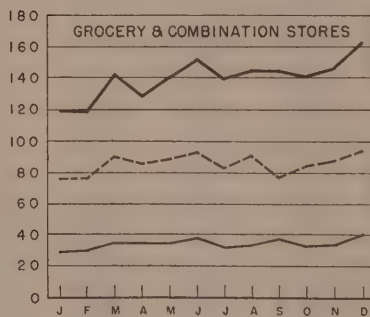
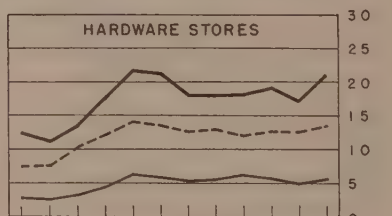
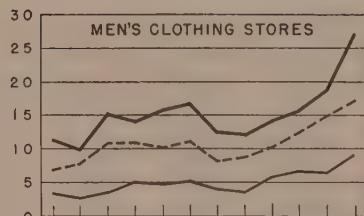
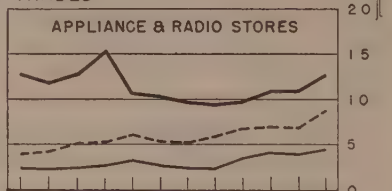
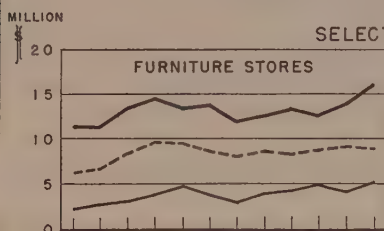
17.—Estimated Retail Trade, by Provinces and by Kinds of Business, 1941 and 1949-51
(Exclusive of Newfoundland)

Province and Kind of Business	1941	1949	1950	1951
	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Maritime Provinces.....	283	614	654	702
Quebec.....	819	1,891	2,205	2,458
Ontario.....	1,407	3,234	3,644	4,032
Manitoba.....	211	556	606	667
Saskatchewan.....	187	520	549	617
Alberta.....	221	673	748	831
British Columbia.....	309	940	1,061	1,138
Totals.....	3,437	8,428	9,467	10,445
Grocery and combination stores.....	567	1,337	1,451	1,673
Meat stores.....	80	176	182	204
Country general stores.....	213	470	474	535
Department stores.....	378	856	873	902
Variety stores.....	85	164	170	190
Motor-vehicle dealers.....	360	1,030	1,554	1,812
Garages and filling stations.....	205	483	498	548
Men's clothing stores.....	80	172	172	183
Family clothing stores.....	74	157	161	171
Women's clothing stores.....	71	181	161	177
Shoe stores.....	44	95	93	100
Hardware stores.....	73	194	198	210
Lumber and building materials dealers.....	80	278	349	356
Furniture stores.....	64	149	160	157
Appliance and radio stores.....	46	131	145	135
Restaurants.....	127	321	359	360
Coal and wood dealers.....	99	179	194	198
Drug stores.....	101	200	208	228
Jewellery stores.....	38	74	79	77
Tobacco stores.....	43	85	81	88
Other.....	609	1,687	1,926	2,141

RETAIL SALES IN CANADA



MONTHLY DOLLAR SALES FOR SELECTED TRADES



1939 —

1946 ---

1951 —

Retail Chain Stores.—Chain-store sales in 1950 amounted to \$1,559,693,100, a gain of 10 p.c. compared with the 1949 total of \$1,420,080,800. Other advances in the operation of retail chain stores in 1950 in relation to 1949 were: salaries and wages 12 p.c.; accounts outstanding 30 p.c.; store stocks 29 p.c.; and warehouse stocks 28 p.c. Sales of 7,155 chain-store units in 1950 made up 16.5 p.c. of all retail sales in Canada.

18.—Chain-Store Statistics, 1930 and 1941-50

Year	Average Number of Stores	Net Retail Sales	Salaries and Wages Paid to Store Employees	Stocks on Hand, End of Year		Accounts Outstanding, End of Year
				Stores	Warehouses	
		\$'000	\$'000	\$'000	\$'000	\$'000
1930.....	8,097	487,336	50,405	60,457	20,976	33,376
1941.....	7,622	639,210	57,777	68,619	22,633	33,376
1942.....	7,010	687,447	57,654	66,940	22,603	15,527
1943.....	6,780	703,950	58,804	67,628	21,855	15,093
1944.....	6,560	769,643	63,300	66,944	29,013	16,369
1945.....	6,580	876,209	68,196	68,247	37,436	19,643
1946.....	6,559	1,014,847	77,474	85,345	43,546	31,492
1947.....	6,716	1,177,323	91,266	105,040	46,190	40,199
1948.....	6,823	1,335,174	107,697	118,452	46,755	50,001
1949 ¹	6,839	1,420,081	115,903	123,696	60,501	65,001
1950 ¹	7,155	1,559,693	129,334	159,083	60,501	65,001

¹ Exclusive of Newfoundland.

19.—Chain-Store Sales, by Provinces and by Kinds of Business, 1948-50

(Exclusive of Newfoundland)

Province or Territory and Kind of Business	1948	1949	1950	P.C. Change 1949-50
	\$'000	\$'000	\$'000	
Maritime Provinces.....	98,500	101,299	105,833	+ 4.5
Quebec.....	271,307	283,388	318,377	+12.3
Ontario.....	595,546	641,304	722,838	+12.7
Manitoba.....	63,327	68,392	72,578	+ 6.1
Saskatchewan.....	67,198	71,811	72,633	+ 1.1
Alberta.....	85,383	96,712	107,181	+10.8
British Columbia.....	149,220	152,334	154,974	+ 1.7
Yukon and Northwest Territories.....	5,254	4,841	5,279	+ 9.0
Totals.....	1,335,735	1,420,081	1,559,693	+ 9.8
Food—				
Grocery, combination and meat market.....	393,724	440,288	510,500	+15.9
Totals, Food¹.....	408,557	454,296	524,710	+15.5
Country General Stores.....	15,123	15,060	15,988	+ 6.2
General Merchandise— ²				
Variety Stores.....	133,907	142,061	147,732	+ 4.0
Totals, General Merchandise¹.....	146,546	154,667	160,410	+ 3.7
Automotive.....	23,284	22,751	29,626	+30.2
Apparel—				
Men's and boys' clothing.....	17,919	17,822	19,975	+12.1
Family clothing.....	33,817	33,770	35,759	+ 5.9
Women's apparel.....	34,834	37,382	38,604	+ 3.3
Shoe stores.....	31,378	31,926	33,013	+ 3.4
Totals, Apparel.....	117,948	120,900	127,351	+ 5.3
Building Materials.....	67,190	71,529	81,795	+14.4

For footnotes, see end of table, p. 890.

19.—Chain-Store Sales, by Provinces and by Kinds of Business, 1948-50—concluded

Kind of Business	1948	1949	1950	P.C. Change 1949-50
	\$'000	\$'000	\$'000	
Furniture, Household—				
Furniture stores.....	35,679	34,555	36,423	+ 5.4
Household appliances.....	27,273	28,940	35,823	+23.8
Totals, Furniture, Household.....	62,952	63,495	72,246	+13.8
Restaurant.....	21,899	21,460	22,783	+ 6.2
Other Retail Stores—				
Drug stores.....	27,458	27,430	28,953	+ 5.6
Jewellery stores.....	21,392	27,341	30,788	+12.6
Government liquor stores.....	267,492	276,685	290,102	+ 4.8
Totals, Other Retail Stores ¹	472,236	495,223	524,784	+ 5.8

¹ Includes other kinds of business not shown separately.² Department stores excluded.

Department Stores.—This series is interesting not only because department stores account for nearly 9 p.c. of total retail trade, but because the diversity of merchandise handled gives some indication of the direction of consumer purchasing. Department store sales in 1951 reached an all-time high of \$901,717,000, an increase of 3.3 p.c. compared with the 1950 total of \$872,380,000. Alberta and Saskatchewan recorded the largest increases over 1950 with gains of 7.6 p.c. and 6.8 p.c., respectively. Year-end inventory holdings (Dec. 31, 1951) of department stores amounted to \$182,570,000, 2.9 p.c. above the level of those held on the same date of 1950, when stocks totalled \$177,387,000.

20.—Department Store Sales and Stocks, by Type of Department, 1950 and 1951

Type of Department	Sales			Stocks at Dec. 31		
	1950 ^p	1951 ^p	P.C. Change 1950-51	1950	1951	P.C. Change 1950-51
	\$'000	\$'000		\$'000	\$'000	
Women's and misses' dresses.....	30,220	31,770	+ 5.1	3,799	3,010	-20.8
Women's and misses' coats and suits.....	27,880	26,460	- 5.1	3,066	2,550	-16.8
Women's and misses' sportswear.....	21,370	23,000	+ 7.6	3,670	3,310	- 9.8
Furs.....	14,320	13,100	- 8.5	3,936	3,330	- 3.9
Girls and infants' wear.....	37,230	40,050	+ 7.6	5,127	6,460	+26.0
Lingerie and corsets.....	33,240	34,220	+ 0.1	6,257	5,690	- 9.1
Aprons, housedresses and uniforms.....	7,180	6,780	- 5.6	888	700	-21.2
Millinery.....	8,670	9,030	+ 4.2	694	690	- 0.6
Hosiery and apparel accessories.....	35,400	37,770	+ 6.7	6,579	6,020	- 8.5
Women's, misses' and children's shoes.....	36,760	39,620	+ 7.8	9,437	10,650	+ 6.5
Men's clothing.....	30,490	30,620	+ 0.4	6,321	7,370	+16.6
Men's furnishings.....	42,470	44,430	+ 4.6	7,224	8,540	+18.2
Boys' clothing and furnishings.....	23,490	24,670	+ 5.0	4,658	5,050	+ 8.4
Men's and boys' shoes.....	15,300	16,430	+ 7.4	3,857	3,840	- 0.4
Food and kindred products.....	59,420	63,880	+ 7.5	4,062	4,150	+ 2.2
Toiletries, cosmetics and drugs.....	19,980	22,060	+10.4	4,505	4,370	- 3.0
Photographic equipment and supplies.....	2,540	2,890	+13.8	850	780	- 8.2
Piece goods.....	23,690	23,420	- 1.1	8,304	7,780	- 6.3
Linens and domestics.....	32,560	33,200	+ 2.0	7,659	7,640	- 0.2
Smallwares.....	18,660	19,250	+ 3.2	5,486	5,380	- 1.9
China and glassware.....	12,220	12,830	+ 5.0	5,350	6,900	+29.0
Home furnishings.....	54,350	54,880	+ 1.0	17,188	19,150	+11.4
Furniture.....	53,620	51,500	- 4.0	12,360	12,610	+ 2.0
Major appliances.....	34,680	31,040	-10.5	8,239	7,340	-10.9
Radio and music.....	12,900	12,440	- 3.6	3,886	4,130	+ 6.3
Hardware and housewares.....	50,870	53,740	+ 5.6	10,903	11,500	+ 5.5
Jewellery.....	13,300	19,090	+ 4.3	6,913	7,050	+ 2.0
Sporting goods and luggage.....	33,220	34,850	+ 4.9	6,699	6,560	- 2.1
Stationery, books and magazines.....	14,820	15,350	+ 3.6	3,140	3,080	- 1.9
All other departments.....	67,840	73,460	+ 8.3	6,280	7,040	+12.1
Totals.....	872,690	901,830	+ 3.3	177,387	182,570	+ 2.9

Operating Results of Retail Stores.—The operating results series is conducted on a biennial basis—retail chain stores and wholesale trade were covered for 1947 and 1949, and independent retail stores were last surveyed on 1950 operations. The latest available data on retail chain stores (1949) appear in the 1951 Year Book, pp. 848-849, and are not repeated here.

Retail Independent Stores.—Studies concerning the operating ratios of independent retail merchants have been carried on over an extended period. Such statistics have been gathered to assist merchants in assessing the efficiency of various phases of their operations, to provide estimates of the contribution made to national income by unincorporated retail stores and to assist the prospective entrant into any of the retail trades in estimating his opportunities and prospects of success. Since the publication of recent detailed studies, their value has become evident as a basis for marketing research and as essential elements in the understanding of the structure of retail distribution.

Attention has been focussed on the relationships between net sales, gross trading profit or margin, operating expenses and net profit. Expenses have been examined in some detail to include salaries and wages paid to employees; advertising; store supplies; losses on bad debts; tax and insurance costs; rentals; heat, light and power used; repair and maintenance expense; depreciation; and other items.

Table 21 reviews some of the operating features of various trades based on 1950 averages.

21.—Operating Ratios in Retail Trade, by Kinds of Business, 1950

NOTE.—All figures except stock turnover are percentages of net sales.

Kind of Business	Cost of Goods Sold	Gross Margin	Total Operating Expenses ¹	Salaries and Wages ²	Occupancy Expenses ³	Net Profit before Income Tax ⁴	Inventories		Stock Turn-over ⁵
							Begin-ning	End-ing	
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	No.
Unincorporated									
Grocery.....	85.6	14.4	9.2	3.7	2.8	5.2	7.5	8.3	10.9
Combination stores.....	85.1	14.9	10.8	5.3	2.6	4.1	5.7	6.6	13.9
Meat.....	83.9	16.1	11.1	5.1	2.7	5.0	1.8	2.1	43.4
Confectionery.....	81.8	18.2	10.7	3.9	5.0	7.5	6.9	7.6	11.3
Fruits and vegetables.....	82.5	17.5	11.6	4.1	3.8	5.9	4.1	4.7	18.8
Men's clothing.....	73.2	26.8	16.5	6.9	5.1	10.3	32.8	35.7	2.1
Family clothing.....	75.6	24.4	15.7	7.1	4.5	8.7	33.3	35.5	2.2
Women's ready-to-wear.....	73.2	26.8	19.1	8.2	5.9	7.7	20.2	21.9	3.5
Family shoe.....	72.6	27.4	16.8	7.6	5.4	10.6	37.3	40.5	1.9
Country general.....	85.5	14.5	9.0	4.1	2.6	5.5	21.0	22.4	3.9
Furniture.....	72.9	27.1	18.4	6.7	4.9	8.7	23.0	26.9	2.9
Household appliances and radios.....	72.2	27.8	17.8	8.5	3.6	10.0	13.9	18.9	4.4
Hardware.....	74.2	25.8	15.4	7.4	3.9	10.4	29.0	32.6	2.4
Restaurants.....	61.3	38.7	32.2	19.1	9.2	6.5	2.6	2.8	22.5
Coal and wood.....	79.4	20.6	15.5	4.1	2.1	5.1	5.7	6.3	13.2
Drug stores.....	71.1	28.9	17.0	8.5	4.6	11.9	20.4	21.9	3.4
Jewellery.....	61.2	38.8	24.8	11.2	6.9	14.0	40.4	44.7	1.4
Tobacco.....	82.4	17.6	10.2	4.3	4.1	7.4	10.2	11.0	7.8
Filling stations.....	81.3	18.7	12.7	6.8	3.9	6.0	3.4	4.0	18.7
Garages.....	72.2	27.8	20.1	11.2	5.3	7.7	6.2	7.2	10.7
Incorporated									
Men's clothing.....	70.2	29.8	25.0	14.0	5.3	4.8	27.5	31.7	2.4
Women's clothing.....	71.0	29.0	26.9	14.9	6.4	2.1	17.1	18.1	4.0
Family clothing.....	70.4	29.6	26.1	14.9	4.8	3.5	24.9	27.8	2.7
Shoes.....	68.0	32.0	27.2	15.6	6.4	4.8	31.3	34.9	2.1
Hardware.....	73.0	27.0	23.4	14.2	3.9	3.6	27.3	30.5	2.5
Coal and Wood.....	79.8	20.2	17.9	5.9	1.9	2.3	5.1	5.0	15.8
Drug.....	66.6	33.4	29.0	18.5	5.8	4.4	22.4	24.1	2.9
Jewellery.....	58.3	41.7	35.9	20.2	7.0	5.8	33.7	39.3	1.6

¹ Includes salaries and wages, occupancy expense and store supplies plus all other expenses. ² Salaries and wages do not include delivery or proprietors' salaries. ³ Includes taxes and insurance, light, heat and power, repairs, maintenance, depreciation (except on delivery equipment) and rentals on rented premises. ⁴ Includes, for unincorporated stores, proprietors' salaries or withdrawals. ⁵ Times per year—cost of goods sold, divided by average of beginning and year-end inventories.

Retail Consumer Credit.—Studies on retail consumer credit, an outgrowth of special inquiries conducted by the Wartime Prices and Trade Board during the period of wartime controls, have been continued by the Dominion Bureau of Statistics since 1945. Only those trades in which the extension of credit plays an important part were brought within the scope of these surveys.

Prior to 1951, the changes in credit sales and accounts outstanding were presented in index form. In 1951, the series was revised to show estimated dollar value back to 1948. Results of consumer spending are shown here in dollar form from 1948 to the latest available quarterly period.

Table 22 shows dollar estimates of cash, instalment and charge sales by quarterly periods from 1948 to the end of 1951, and percentage composition of sales and receivables. The movement in sales and accounts receivable of retail consumer credit are shown in Table 23.

22.—Quarterly Dollar Estimates and Percentage Composition of Retail Consumer Credit for All Trades, 1948-51

Period	Sales during Period				Accounts Receivable at End of Period		
	Cash	Instalment	Charge	Total Sales	Instalment	Charge	Total
DOLLAR ESTIMATES (IN MILLIONS)							
1948-January-March.....	1,176.2	82.4	338.8	1,597.4	75.2	235.0	310.2
April-June.....	1,471.5	107.6	391.3	1,970.4	83.5	260.0	343.5
July-September.....	1,534.8	92.1	387.6	2,014.5	86.2	271.2	357.4
October-December.....	1,694.7	129.8	432.5	2,257.0	111.6	299.7	411.3
1949-January-March.....	1,230.6	97.8	361.4	1,689.8	104.7	267.0	371.7
April-June.....	1,626.3	133.7	450.9	2,210.9	112.8	298.7	411.5
July-September.....	1,618.6	128.1	439.8	2,186.5	115.0	299.9	414.9
October-December.....	1,716.7	155.4	468.6	2,340.7	139.8	327.7	467.5
1950-January-March.....	1,353.9	137.3	382.2	1,873.4	129.6	291.4	421.0
April-June.....	1,764.5	183.4	475.1	2,423.0	137.4	313.2	450.6
July-September.....	1,838.6	196.0	497.8	2,532.4	144.5	331.2	475.7
October-December.....	1,927.4	203.4	507.8	2,638.6	160.5	377.1	546.6
1951-January-March.....	1,589.0	183.8	476.8	2,249.6	143.2	348.7	491.9
April-June.....	1,989.8	200.8	540.0	2,730.6	121.8	356.5	478.3
July-September.....	1,920.5	197.4	536.5	2,654.4	99.8	356.9	456.7
October-December.....	2,033.1	195.4	581.9	2,810.4	105.7	401.7	507.4
PERCENTAGE COMPOSITION							
1941-Average.....	71.6	8.9	19.5	100.0	34.4	65.6	100.0
1948-January-March.....	73.6	5.2	21.2	100.0	24.2	75.8	100.0
April-June.....	74.7	5.5	19.8	100.0	24.3	75.7	100.0
July-September.....	76.2	4.6	19.2	100.0	24.1	75.9	100.0
October-December.....	75.1	5.7	19.2	100.0	27.1	72.9	100.0
1949-January-March.....	73.1	5.8	21.1	100.0	28.2	71.8	100.0
April-June.....	73.5	6.1	20.4	100.0	27.4	72.6	100.0
July-September.....	73.9	5.9	20.2	100.0	27.7	72.3	100.0
October-December.....	73.3	6.5	20.2	100.0	29.9	70.1	100.0
1950-January-March.....	72.3	7.3	20.4	100.0	30.8	69.2	100.0
April-June.....	72.8	7.6	19.6	100.0	30.5	69.5	100.0
July-September.....	72.6	7.7	19.7	100.0	31.0	69.0	100.0
October-December.....	73.1	7.7	19.2	100.0	31.0	69.0	100.0
1951-January-March.....	70.6	8.2	21.2	100.0	29.1	70.9	100.0
April-June.....	72.9	7.3	19.8	100.0	25.5	74.5	100.0
July-September.....	72.4	7.4	20.2	100.0	21.9	78.1	100.0
October-December.....	72.3	7.0	20.7	100.0	20.8	79.2	100.0

23.—Dollar Estimates of Sales and Accounts Receivable, for Selected Trades, 1948-51

(Millions of Dollars)

Kind of Business and Year	Sales during Year				Accounts Receivable at Dec. 31		
	Cash	Instal- ment	Charge	Total Sales	Instal- ment	Charge	Total
Department stores.....1948	579.0	92.4	131.7	803.1	39.8	30.1	69.9
1949	602.3	107.8	145.4	855.5	49.5	34.2	83.7
1950	601.9	112.5	158.0	872.4	53.7	39.9	93.6
1951	639.0	77.0	185.7	901.7	26.5	49.2	75.7
Motor-vehicles.....1948	448.3	123.6	262.0	833.9	2.7	49.1	51.8
1949	562.6	175.2	292.7	1,030.5	4.6	51.2	55.8
1950	867.3	323.6	362.8	1,553.7	5.2	67.2	72.4
1951	952.1	426.8	433.0	1,811.9	5.1	65.2	70.3
Men's clothing.....1948	141.8	3.7	20.0	165.5	1.4	6.7	8.1
1949	144.3	3.8	24.1	172.2	1.6	7.4	9.0
1950	139.8	6.6	25.2	171.6	2.9	8.1	11.0
1951	148.5	7.5	26.7	182.7	2.7	8.6	11.3
Family clothing.....1948	126.3	12.1	20.2	158.6	4.8	5.8	10.6
1949	122.6	12.6	21.6	156.8	4.7	6.7	11.4
1950	123.6	12.7	24.2	160.5	4.4	7.5	11.9
1951	132.3	13.4	25.7	171.4	5.4	7.4	12.8
Women's clothing.....1948	140.6	3.3	23.9	167.8	0.8	5.8	6.6
1949	152.6	3.3	25.2	181.1	0.6	6.3	6.9
1950	136.1	2.5	22.5	161.1	0.7	6.5	7.2
1951	149.6	2.6	24.9	177.1	0.9	6.0	6.9
Hardware.....1948	119.0	4.0	60.8	183.8	1.0	13.4	14.4
1949	124.1	6.0	63.8	193.9	1.1	16.7	17.8
1950	122.7	8.3	67.1	198.1	1.8	17.8	19.6
1951	134.3	6.1	69.5	209.9	0.9	18.4	19.3
Furniture.....1948	71.3	56.3	19.9	147.5	20.9	3.7	24.6
1949	65.7	60.9	22.3	148.9	25.7	4.5	30.2
1950	68.4	67.0	24.2	159.6	34.3	5.9	40.2
1951	72.9	56.8	27.5	157.2	19.7	5.4	25.1
Appliance and radio.....1948	47.0	34.4	29.7	111.1	13.3	7.0	20.3
1949	52.6	48.3	29.8	130.7	19.9	6.2	26.1
1950	57.4	53.7	28.8	144.9	28.4	7.8	36.2
1951	56.6	47.4	31.5	135.5	20.6	6.7	27.3
Jewellery.....1948	46.5	12.3	11.8	70.6	5.8	3.3	9.1
1949	47.4	14.4	12.5	74.3	6.2	3.3	9.5
1950	46.3	16.7	15.9	78.9	6.7	3.7	10.4
1951	43.7	13.3	15.5	72.5	4.3	4.0	8.3
Grocery and combination.....1948	643.6	1	226.5	870.1	1	28.7	28.7
(independent) 1949	663.3	1	237.9	901.2	1	30.0	30.0
1950	705.4	1	239.9	945.3	1	28.2	28.2
1951	782.3	1	266.4	1,048.7	1	31.6	31.6
Country general.....1948	348.4	1	128.9	477.3	1	25.3	25.3
1949	341.5	1	137.4	478.9	1	27.3	27.3
1950	337.3	1	137.1	474.4	1	31.5	31.5
1951	383.5	1	151.8	535.3	1	32.4	32.4
Coal and wood.....1948	93.9	1	85.3	179.2	1	17.9	17.9
1949	92.1	1	87.2	179.3	1	20.3	20.3
1950	93.4	1	100.9	194.3	1	23.2	23.2
1951	96.0	1	102.2	198.2	1	25.7	25.7
Garages and Filling Stations....1948	348.0	1	92.5	440.5	1	20.0	20.0
1949	371.5	1	111.5	483.0	1	23.0	23.0
1950	383.7	1	114.3	498.0	1	25.4	25.4
1951	416.0	1	131.6	547.6	1	29.9	29.9

1 Instalment credit not characteristic of this trade.

Subsection 3.—Statistics of Service Establishments

Theatres.—Receipts from the exhibition of motion pictures in Canada, in 1950, amounted to \$86,713,357 with an additional \$11,841,704 collected in amusement taxes. These figures include all types of operation—regular theatres, drive-in theatres, community enterprises and itinerant operators. The total number of paid admissions was 242,396,679.

Drive-in theatres increased in number from 30 in 1949 with receipts (excluding amusement tax) of \$1,392,760 to 62 in 1950 with receipts of \$2,290,679. Itinerant exhibitors gave performances in 906 towns and villages in 1950 from which the receipts (excluding taxes) were \$463,605 and the number of paid admissions was 1,571,697.

Table 24 shows receipts, by provinces, of regular theatres and community enterprises. These two types are combined here for continuity of the statistics shown in earlier editions of the Year Book. Significant statistics concerning the four types of motion picture entertainment are also summarized in Table 25.

24.—Motion Picture Theatres and Receipts, by Provinces, 1941 and 1947-50

NOTE.—Itinerant operators and legitimate theatre operators are not included in these figures. Receipts are exclusive of amusement taxes.

Province	1941		1947		1948 ¹		1949 ¹		1950 ¹	
	No.	Receipts	No.	Receipts	No.	Receipts	No.	Receipts	No.	Receipts
		\$		\$		\$		\$		\$
Newfoundland.....	...	...	...	...	...	...	45	857,982	63	916,634
Prince Edward Island.....	6	141,317	14	255,835	16	281,995	17	288,741	17	293,307
Nova Scotia.....	61	2,195,599	79	2,666,189	78	2,738,331	82	3,111,160	85	3,269,653
New Brunswick.....	39	1,102,265	58	1,771,036	58	1,993,102	64	2,051,791	66	2,064,199
Quebec.....	202	8,047,022	318	13,918,163	472	16,405,929	506	19,502,992	583	21,644,261
Ontario.....	410	18,757,372	473	27,043,278	523	29,523,367	562	31,937,717	572	34,164,338
Manitoba.....	111	2,475,949	146	3,526,223	146	3,709,443	155	4,307,397	162	4,280,796
Saskatchewan.....	145	1,673,313	254	2,914,301	263	3,220,907	341	3,728,765	385	3,900,454
Alberta.....	144	2,257,115	178	3,711,366	216	4,245,121	236	5,111,220	257	5,482,890
British Columbia.....	122	4,145,945	173	7,058,888	178	7,539,053	192	7,662,014	197	7,942,541
Totals.....	1,240	40,795,897	1,693	62,865,279	1,950	69,657,248	2,200	78,559,779	2,387	83,959,073

¹ Includes, in addition to regular theatres, establishments in which motion picture entertainment is provided by community organizations such as churches, lodges, Boards of Trade, etc. In 1948 these halls numbered 346 with receipts of \$962,927; in 1949, 460 halls had receipts of \$1,140,307; and, in 1950, 586 halls had receipts of \$1,251,311.

25.—Summary Statistics of Motion Picture Theatre Operations, 1950

Item	Regular Theatres	Drive-in Theatres	Community Enterprises	Itinerant Operators	Total
Establishments..... No.	1,801	62	586	175	2,624
Receipts (excluding taxes)..... \$	82,707,762	2,290,679	1,251,311	463,605	86,713,357
Amusement Taxes..... \$	11,444,668	300,028	57,532	39,476	11,841,704
Paid admissions..... No.	231,746,881	4,943,000	4,135,101	1,571,697	242,396,679

Power Laundries, Cleaning and Dyeing Plants.—There were 323 power laundries and 919 cleaning and dyeing plants operating in Canada in 1950. These two industries provided services to the value of \$86,836,564 during the year accounted for as follows: cleaning \$46,884,466, laundry \$30,567,192, dyeing \$1,471,789, linen rentals \$4,299,832 and other services \$3,613,285.

26.—Summary Statistics of Power Laundries, Dry Cleaning and Dyeing Plants, 1941 and 1947-50, and by Provinces, 1950

Year and Province	Plants	Em- ployees ¹	Salaries and Wages	Cost of Materials	Value of Work Performed
POWER LAUNDRIES					
	No.	No.	\$	\$	\$
1941.....	237	11,844	10,120,662	2,348,740	19,816,895
1947.....	244	13,950	16,357,072	3,560,120	30,459,393
1948.....	294	13,923	18,737,302	4,138,029	35,360,996
1949 ²	332	14,240	20,408,336	4,485,436	38,659,596
1950					
Newfoundland and P.E. Island.....	7	117	135,032	29,159	298,459
Nova Scotia.....	15	402	471,482	108,145	981,340
New Brunswick.....	12	397	492,091	117,330	919,935
Quebec.....	79	4,333	6,252,243	1,449,251	11,763,063
Ontario.....	131	5,113	7,250,381	1,779,345	14,305,773
Manitoba.....	10	714	1,003,479	254,465	1,877,658
Saskatchewan.....	8	331	463,178	119,504	993,230
Alberta.....	17	802	1,241,634	263,573	2,478,501
British Columbia ³	44	2,101	3,666,910	690,910	7,028,983
Canada, 1950.....	323	14,310	20,976,430	4,811,682	40,586,942
DRY CLEANING AND DYEING PLANTS					
1941.....	363	6,554	6,125,635	1,433,790	12,678,275
1947.....	530	10,906	14,144,464	3,041,506	28,584,285
1948.....	787	11,953	17,140,254	4,400,688	36,620,948
1949 ²	905	12,886	20,107,095	4,939,685	42,574,449
1950					
Newfoundland and P.E. Island.....	11	179	246,456	70,833	573,978
Nova Scotia.....	33	466	660,206	201,289	1,327,107
New Brunswick.....	32	270	379,468	110,416	951,622
Quebec.....	167	3,120	5,125,849	1,249,996	10,654,269
Ontario.....	391	5,930	9,646,769	2,421,352	20,852,820
Manitoba.....	38	1,017	1,626,771	363,687	3,057,131
Saskatchewan.....	58	501	770,938	194,623	1,855,630
Alberta.....	85	876	1,346,054	343,969	3,041,988
British Columbia ³	104	1,091	1,902,178	422,399	3,935,077
Canada, 1950.....	919	13,450	21,704,698	5,378,564	46,249,622

¹ Includes salaried employees and wage-earners. In addition, in power laundries there were 81 male and 12 female proprietors who received salaries of \$214,602 and 149 male and 15 female proprietors who received no regular salary in 1950. In the dry cleaning and dyeing plants, there were 248 male and 25 female proprietors who received salaries of \$668,550 and 714 male and 56 female proprietors who received no regular salary in 1950.

² Newfoundland included from 1949.

³ Includes the Yukon and Northwest Territories.

Hotels.—The first survey of hotels since the 1941 Census was made for 1949. This was repeated for 1950 and will also form part of the results of the 1951 Census of Distribution. The 1949 data on hotels have been revised to exclude public-houses, originally included with Ontario hotels. In some instances, businesses were included as hotels in 1949 due to improper description, i.e., a large tourist home described as a lodge or seasonal resort. The decrease in number of hotels in 1950 may be attributable in some provinces to certain refinement of classification.

Of the 5,169 hotels in Canada in 1950, 4,204 operated on a full-year basis and 965 as seasonal hotels. Gross revenue of full-year hotels amounted to \$304,287,000 and of seasonal hotels \$18,103,000.

The total receipts of hotels in 1950 were derived from the following sources: \$162,815,000 from sales of beer, wine and liquor; \$75,842,000 from room rentals; \$58,586,000 from meal sales; \$22,490,000 from sales of merchandise and from other sources; and \$2,657,000 from leased concessions. Expenditure amounted to \$297,104,000, including \$73,950,000 paid in salaries and wages.

27.—Hotels and Total Receipts, by Provinces, 1941, 1949 and 1950

Province	1941			1949			1950		
	Hotels	Rooms	Receipts	Hotels	Rooms	Receipts	Hotels	Rooms	Receipts
	No.	No.	\$'000	No.	No.	\$'000	No.	No.	\$'000
Newfoundland.....	...	...	...	44	750	1,320	30	814	1,814
Prince Edward Island.....	38	592	249	29	712	586	26	644	543
Nova Scotia.....	226	3,663	2,896	173	4,142	5,281	163	3,954	5,254
New Brunswick.....	171	3,570	1,807	138	3,620	3,369	122	3,407	3,501
Quebec.....	1,556	30,893	28,647	1,582	38,654	72,967	1,510	37,764	73,651
Ontario.....	1,762	40,388	66,076	1,538	45,158	109,417	1,451	44,589	107,608
Manitoba.....	278	7,350	7,953	279	7,941	23,495	274	7,694	23,073
Saskatchewan.....	595	11,635	9,297	575	12,555	28,154	567	12,357	28,049
Alberta.....	433	12,918	14,218	449	14,250	41,125	444	13,985	40,463
British Columbia ¹	587	17,981	16,345	618	22,316	38,738	582	21,145	38,434
Canada.....	5,646	128,980	147,488	5,425	150,098	324,452	5,169	146,353	322,390

¹ Includes the Yukon and Northwest Territories.

Subsection 4.—Miscellaneous Merchandising Statistics

Farm Implement Sales.—Manufacturers' and importers' sales of farm implements and equipment amounted to \$218,187,120 in 1950, as compared with \$217,089,685 in 1949. These values are mainly at wholesale prices. It is estimated that, in terms of retail prices, Canadian farmers spent approximately \$263,000,000 on implements and equipment in 1950. These figures do not include expenditure for trucks, machine parts, binder twine or other farm supplies. Sales of repair parts totalled \$29,862,034 in 1950, at wholesale prices, or an estimated \$39,000,000 at the retail level.

28.—Farm Implement and Equipment Sales, by Provinces, 1949 and 1950

NOTE.—Values are mainly at wholesale prices.

Province	1949		1950		P.C. Change 1949-50
	Amount	P.C. of Total	Amount	P.C. of Total	
	\$		\$		
Atlantic Provinces ¹	5,399,111	2.5	5,946,209	2.7	+10.1
Quebec.....	16,657,442	7.7	19,137,999	8.8	+14.9
Ontario.....	47,775,991	22.0	51,922,436	23.8	+ 8.7
Manitoba.....	37,474,620	17.2	29,308,664	13.4	-21.8
Saskatchewan.....	59,629,464	27.5	62,629,271	28.7	+ 5.0
Alberta.....	44,459,129	20.5	45,117,409	20.7	+ 1.5
British Columbia.....	5,693,928	2.6	4,125,132	1.9	-27.6
Totals.....	217,089,685	100.0	218,187,120	100.0	+ 0.5

¹ Includes Newfoundland.

Separate sales figures for different types of equipment are presented in Table 29.

29.—Sales of New Farm Implements and Equipment, in Canada and the Prairie Provinces, by Types, 1949 and 1950

NOTE.—Values are mainly at wholesale prices.

Type	Canada			Prairie Provinces			
	1949	1950	P.C. Change 1949-50	1949	1950	P.C. Change 1949-50	P.C. of Canada Total, 1950
	\$	\$		\$	\$		
Planting, seeding and fertilizing machinery.....	8,137,527	8,805,616	+8.2	4,070,832	4,305,889	+5.8	48.9
Ploughs.....	17,938,013	15,228,291	-15.1	13,951,389	11,198,096	-19.7	73.5
Tilling, cultivating and weeding machinery.....	12,241,228	13,202,326	+7.9	8,383,492	9,759,427	+16.4	73.9
Haying machinery.....	10,569,126	10,610,317	+0.4	4,288,005	3,704,367	-13.6	34.9
Harvesting machinery.....	39,088,015	44,243,044	+13.2	34,219,947	38,113,347	+11.4	86.1
Machines for preparing crops for market or use.....	7,822,176	8,486,629	+8.5	3,788,136	3,687,892	-2.6	43.5
Tractors and engines.....	102,025,541	98,000,680	-3.9	66,512,089	60,392,436	-9.2	61.6
Spraying and dusting equipment.....	1,332,584	1,416,507	+6.3	665,561	699,960	+5.2	49.4
Farm wagons, trucks and sleighs.....	2,824,935	2,220,870	-21.4	1,650,118	966,445	-41.4	43.5
Water systems and pumps.....	5,386,881	5,375,319	-0.2	1,225,773	1,212,723	-1.1	22.6
Dairy machinery and equipment.....	4,004,640	4,033,896	+0.7	886,638	585,702	-33.9	14.5
Barn equipment.....	2,166,836	2,266,024	+4.6	460,139	419,203	-8.9	18.5
Poultry farm equipment.....	466,863	317,694	-32.0	114,235	106,970	-6.4	33.7
Miscellaneous farm equipment.....	3,085,320	3,979,907	+29.0	1,346,859	1,902,887	+41.3	47.8
Totals.....	217,089,685	218,187,120	+0.5	141,563,213	137,055,344	-3.2	62.8

Sales of New Motor-Vehicles.—The sales of new motor-vehicles dropped from a record high of 429,695 units in 1950 to 385,648 units in 1951. The decrease was accounted for by passenger-car sales, the number of trucks and buses sold in 1951 being higher than in any previous year.

30.—Retail Sales of New Motor-Vehicles, 1937-51

Year	Passenger Cars		Trucks and Buses		Totals	
	No.	\$	No.	\$	No.	\$
1937.....	114,275	116,886,334	30,166	32,284,193	144,441	149,170,527
1938.....	95,751	105,006,462	25,414	30,005,446	121,165	135,011,908
1939.....	90,054	97,131,128	24,693	28,836,393	114,747	125,967,521
1940.....	101,789	114,928,833	28,763	33,916,445	130,552	148,845,278
1941.....	83,650	108,907,312	34,432	43,008,207	118,082	151,915,519
1942-45.....	..	..	..	..	..	..
1946.....	77,742	120,325,496	42,302	73,003,509	120,044	193,329,005
1947.....	159,205	283,190,390	71,050	133,047,105	230,255	416,237,495
1948.....	145,655	282,903,958	75,645	156,313,030	221,300	439,216,988
1949.....	202,318	412,297,863	84,023	176,426,822	286,341	588,724,685
1950.....	324,903	661,673,944	104,792	223,995,095	429,695	885,669,039
1951.....	275,656	683,182,846	109,962	266,976,665	385,648	950,159,511

Finance Company Operations.—In 1950, 109 finance companies were active in the financing of consumer, commercial and industrial goods in Canada. Total financing amounted to \$429,000,000 in 1950, 51 p.c. greater than the 1949 total of \$285,000,000. Consumer goods continued to account for an increasingly high

proportion of total financing. The 71 p.c. which this category of goods formed of the total in 1950, while higher than in the three previous years, was still below the 1941 proportion of 77 p.c.

31.—Retail Instalment Paper Purchased and Balances Outstanding, by Classes of Goods and Provinces, 1941, 1949 and 1950

(Millions of Dollars)

Item	Paper Purchased			Balances Outstanding Dec. 31—		
	1941	1949 ¹	1950 ¹	1941	1949 ¹	1950 ¹
Class of Goods						
Consumer goods.....	77	191	305	49	116	202
New passenger cars.....	23	72	132	—	47	94
Used passenger cars.....	44	83	122	—	46	74
Other.....	10	36	51	—	23	34
Commercial and industrial.....	23	94	124	16	68	91
New commercial vehicles.....	11	44	61	—	32	46
Used commercial vehicles.....	7	22	30	—	14	20
Other.....	5	28	33	—	22	25
Totals, Retail Financing.....	100	285	429	65	184	293
Province						
Atlantic Provinces ¹	7	24	34	4	15	24
Quebec.....	16	59	87	10	40	62
Ontario.....	48	120	175	30	76	115
Manitoba.....	5	12	21	3	8	15
Saskatchewan.....	6	12	23	5	7	16
Alberta.....	9	29	46	6	19	32
British Columbia.....	9	29	43	7	19	29

¹ Includes Newfoundland in 1949 and 1950.

Balances outstanding on retail instalment paper have mounted sharply in recent years and the total at the end of 1950 was \$293,000,000, 59 p.c. above the year-end total of \$184,000,000 in 1949. On consumer goods, outstanding balances totalled \$202,000,000 at the end of 1950 compared with \$116,000,000 at Dec. 31, 1949.

Table 32 gives a record of the financing of motor-vehicles for the ten years ended 1951. The figures do not agree exactly with those in Table 31 because they were obtained as a product of supplementary monthly surveys and are subject to reporting inconsistencies.

32.—Financing of Motor-Vehicle Sales by Finance Companies, 1942-51

Year	New Motor-Vehicles		Used Motor-Vehicles		All Motor-Vehicles	
	No.	Financing	No.	Financing	No.	Financing
		\$		\$		\$
1942.....	7,398	6,207,111	58,912	18,389,804	66,310	24,596,915
1943.....	1,077	1,254,878	38,496	13,637,688	39,573	14,892,566
1944.....	2,371	2,927,396	30,599	11,643,541	32,970	14,570,937
1945.....	3,630	4,934,456	24,356	9,502,726	27,986	14,437,182
1946.....	22,866	27,978,992	30,527	13,607,573	53,393	41,586,565
1947.....	46,709	65,122,230	72,167	43,322,528	118,867	108,744,758
1948.....	51,867	73,805,672	103,767	71,149,341	155,634	144,955,013
1949 ¹	81,502	115,511,459	151,496	103,672,571	232,988	219,184,030
1950 ¹	135,304	191,434,712	229,377	150,645,893	364,681	342,080,605
1951 ¹	126,255	191,202,909	297,575	185,468,396	423,830	376,671,305

¹ Includes Newfoundland.

The proportion of new motor-vehicles sold for cash was high when motor-vehicle production was resumed after World War II. Each of the years 1947 to 1951 witnessed an increase in the proportion of cars purchased on instalments through finance companies.

**33.—Sales and Financing of New Motor-Vehicles (Passenger and Commercial),
Selected Years, 1933-51**

Year	Motor-Vehicles Sold	Motor-Vehicles Financed	P.C. of Total Sales Financed		Average Financed Value
			Number	Value	
	No.	No.			\$
1933.....	45,332	15,880	35.0	22.1	632
1935.....	101,461	31,950	31.5	22.0	701
1937.....	144,441	56,247	38.9	27.3	723
1939.....	114,747	37,230	32.5	22.1	746
1941.....	118,082	41,032	34.7	23.0	850
1946.....	120,044	22,866	19.0	14.5	1,224
1947.....	230,255	46,700	20.3	15.7	1,401
1948.....	221,300	51,867	23.4	16.8	1,423
1949 ¹	286,341	81,502	28.5	19.6	1,417
1950 ¹	429,695	135,304	31.5	21.6	1,415
1951 ¹	385,648	126,255	32.7	20.1	1,514

¹ Includes Newfoundland.

Section 5.—Co-Operative Organizations*

Each year since 1932 co-operative organizations in Canada have reported voluntarily to the Department of Agriculture on their business operations. Reports received from such organizations for the crop year ended July 31, 1951, numbered 2,348 and included returns from co-operatives of all types. The number reporting in 1951 was 147 less than in 1950 but these were mainly small organizations and it is estimated that the returns received account for over 70 p.c. of all co-operatives and over 90 p.c. of the total volume of business. Membership reported in 1951 was 1,195,034 and volume of business totalled \$988,459,832. Both these figures are less than those reported for 1950. The drop in volume of business for 1951 is attributable mainly to the large quantity of low grade wheat marketed by the western grain co-operatives as a result of the early frosts which damaged the 1950-51 crop.

Volume of business reported by the fishermen's and service co-operatives increased in 1951 over 1950 although the number of associations and total membership in these two groups decreased slightly.

Developments, 1949-50 and 1950-51.—Beginning in September 1951, the University of Saskatchewan offered full credit courses in the management and administration of co-operatives in the degree course of the School of Commerce. For the same scholastic year the University of Ottawa offered a degree course in co-operation leading to the degrees of B.A. (Co-op) and B. Comm. (Co-op).

During 1950, the Province of Saskatchewan made a major revision in its co-operative legislation and in Ontario all medical services co-operatives were placed under the jurisdiction of the Provincial Superintendent of Insurance.

* Prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, by J. E. O'Meara, Marketing Service, Economic Division Department of Agriculture, Ottawa.

In the Province of Newfoundland a provincial co-operative union was organized with the assistance and encouragement of the local government and later this union became affiliated with the Co-operative Union of Canada.

Marketing.—The total value of farm products marketed by co-operatives in Canada amounted to \$769,264,824 for the crop-year ended July 31, 1951. This figure is less by \$34,300,000 than the total reported for the same period in 1950. Decreases were noted in sales of dairy products, fruits and vegetables, grain and seed, eggs and poultry and tobacco. The largest decrease was, of course, in grains and seeds for the reason noted on p. 899. The decrease was offset to a considerable extent by a substantial increase in the sales volume of co-operatives handling live stock.

It is estimated that about 34 p.c. of all farm products marketed commercially in Canada, in 1951, was handled by co-operatives. For the previous year (1950) the estimated proportion was slightly over 35 p.c. For the various commodities concerned the percentages for 1951 are as follows, with similar figures for 1950 shown in parentheses: dairy products 25.8 (27.9); live stock 21.4 (18.7); poultry and eggs 12.2 (15.3); grain and seeds 56.9 (60.6); fruits and vegetables 27.1 (35.8); tobacco 95.6 (94.4).

Merchandising.—Although Canadian co-operatives are prominent in the field of marketing agricultural products they also supply farmers and consumers with production supplies and consumer goods. This phase of co-operative activity has become more important in the last decade but has not yet assumed an important position in the over-all statistics of wholesale and retail business. No authoritative estimate exists of the proportion of wholesale and retail business handled by co-operatives but it is estimated at about 2 p.c.

Total sales value of merchandise and supplies handled by co-operatives in Canada, in 1951, amounted to \$209,985,815, representing an increase of almost \$4,000,000 over the total reported in 1950. The main increases were reported in sales of food products, petroleum products, feed, fertilizer and spray material. Minor decreases were noted in sales of machinery and equipment and in sales of clothing and home furnishings.

Wholesaling.—During 1950-51, 11 co-operative wholesales reported on their business and operations. These wholesales, with total assets amounting to \$25,000,000, supplied and serviced 1,766 co-operative associations.

On behalf of their members, the wholesales in 1951, marketed almost \$80,000,000 of farm products and, in addition, sold to their members \$61,000,000 in farm supplies and consumer goods. Total volume of business for 1951 amounted to \$141,478,212, an increase of \$13,000,000 over the total reported for 1950. Feed and fertilizer sales by co-operative wholesales in Canada in 1951 amounted to \$27,600,000 and accounted for about 40 p.c. of the total supplies handled.

All the wholesales in Canada are federated into Interprovincial Co-operatives Limited. This organization buys on behalf of the member wholesales and provides a medium for co-ordination and service. Interprovincial Co-operatives Limited also distributed flour from the co-operative flour-mill at Saskatoon, Sask., and, in addition, owns and operates a bag factory at Montreal, Que. In 1951, a coffee roasting and blending plant was opened by this organization at Vancouver, B.C., and "co-op" brand coffee is now being supplied to co-operative wholesales and local associations in Western Canada.

Retailing.—Sales of food products in 843 co-operative retail stores amounted to \$54,425,000 during 1950-51; clothing and home furnishings amounting to \$7,726,000 were handled by 543 outlets; and feed and fertilizer sales of over \$18,576,000 through 397 stores. Saskatchewan had the largest number of retail outlets, followed by Alberta and Quebec.

34.—Summary Statistics of Co-operative Marketing and Purchasing Associations, Crop Years Ended July 31, 1943-51

Year	Associations	Places of Business	Patrons	Sales of Farm Products	Sales of Supplies	Total Business ¹
	No.	No.	No.	\$	\$	\$
1943.....	1,650	4,406	608,680	295,499,274	55,689,141	352,785,598
1944.....	1,792	4,534	719,080	459,798,798	65,508,771	527,855,540
1945.....	1,824	4,441	733,345	500,481,627	81,360,855	585,650,066
1946.....	1,953	4,488	922,928	454,564,927	95,603,311	554,329,652
1947.....	2,095	5,084	1,036,498	578,638,214	127,001,488	712,583,246
1948.....	2,249	5,423	1,195,372	616,347,477	157,874,045	780,084,955
1949.....	2,378	6,667	1,209,520	783,293,225	191,804,630	982,232,002
1950.....	2,495	5,761	1,223,582	803,638,962	206,082,408	1,015,264,763
1951.....	2,348	5,830	1,195,034	769,264,824	209,985,815	988,459,832
	Value of Plant	Total Assets	Liabilities to the Public	Shareholders or Members	Members' Equity	
	\$	\$	\$	No.	\$	
1943.....	36,866,861	186,634,839	124,264,085	585,826	62,370,754	
1944.....	40,664,827	203,047,911	130,556,373	690,967	72,491,538	
1945.....	43,048,326	171,128,184	87,354,033	739,804	83,774,151	
1946.....	46,775,158	163,467,434	71,012,280	926,863	92,455,174	
1947.....	53,027,212	168,195,387	71,403,750	982,990	96,791,637	
1948.....	75,009,655	201,603,705	80,381,360	1,127,229	112,222,345	
1949.....	89,832,908	236,962,924	105,599,688	1,144,698	130,363,236	
1950.....	98,514,782	254,478,777	111,092,652	1,173,126	143,886,125	
1951.....	99,790,191	306,834,165	159,357,602	1,184,235	147,476,563	

¹ Includes other revenue.

35.—Products Marketed, Merchandise and Supplies Handled by Co-operative Marketing and Purchasing Associations, Crop Years Ended July 31, 1950 and 1951

Item	1950		1951	
	Associations ¹	Value of Sales	Associations ¹	Value of Sales
	No.	\$	No.	\$
Marketing—				
Dairy products.....	641	134,580,357	610	117,120,583
Fruits and vegetables.....	195	46,250,620	187	32,497,354
Grain and seed.....	116	383,608,336	116	336,260,884
Live stock.....	324	141,713,027	335	192,884,359
Eggs and poultry.....	377	28,408,057	240	25,602,756
Honey.....	10	1,626,271	7	1,216,507
Maple products.....	3	2,025,735	3	2,380,817
Tobacco.....	4	54,868,427	5	51,174,252
Wool.....	10	1,519,639	22	2,248,727
Fur.....	12	659,056	15	933,430
Lumber and wood.....	32	1,615,860	41	1,847,750
Miscellaneous.....	63	6,763,577	46	5,097,405
Totals, Marketing.....	1,361	803,638,962	1,210	769,264,824
Merchandising—				
Food products.....	857	56,535,475	852	57,837,931
Clothing and home furnishings.....	579	8,403,312	538	7,641,051
Petroleum products and accessories.....	697	23,854,741	651	25,466,486
Feed, fertilizer and spray material.....	1,140	74,910,650	1,009	76,492,817
Machinery and equipment.....	493	9,460,542	324	7,488,486
Coal, wood and building material.....	695	14,577,076	629	14,646,884
Miscellaneous.....	981	18,340,612	961	20,412,160
Totals, Merchandising.....	1,874	206,082,408	1,872	209,985,815
Grand Totals.....	2,495	1,009,721,370	2,348	979,250,639

¹ Duplication exists in this column since some associations market produce and also handle supplies. Some market more than one product and many handle most of the supplies listed.

36.—Summary Statistics of Co-operative Marketing and Purchasing Associations by Provinces, Crop Years Ended July 31, 1950 and 1951

Province	Associations	Shareholders or Members	Sales of Products	Sales of Merchandise	Total Business ¹
	No.	No.	\$	\$	\$
Newfoundland.....1950	33	5,419	16,913	2,068,512	2,087,830
.....1951	38	5,558	23,889	2,307,707	2,340,101
Prince Edward Island.....1950	26	8,293	3,085,992	1,281,747	4,376,861
.....1951	32	9,309	2,750,883	2,341,016	5,129,056
Nova Scotia.....1950	123	22,536	7,813,666	13,517,644	21,476,162
.....1951	114	22,185	6,548,561	12,117,451	18,791,301
New Brunswick.....1950	70	12,246	5,588,358	5,078,504	10,700,698
.....1951	60	13,354	5,796,290	4,805,791	10,648,559
Quebec.....1950	776	39,365	71,539,064	50,420,191	122,074,066
.....1951	716	89,922	70,317,707	54,813,566	125,910,918
Ontario.....1950	396	95,736	135,568,254	42,634,320	179,031,708
.....1951	342	94,934	116,252,978	42,117,311	159,348,314
Manitoba.....1950	151	163,616	74,246,649	13,619,334	88,388,516
.....1951	142	174,717	76,986,941	12,971,325	90,439,708
Saskatchewan.....1950	563	403,499	231,499,344	31,010,722	263,739,796
.....1951	552	393,529	216,467,659	34,756,876	252,920,020
Alberta.....1950	215	222,955	140,961,913	19,166,732	161,695,167
.....1951	224	218,051	157,971,582	19,186,237	179,812,287
British Columbia.....1950	135	49,049	50,311,727	15,550,800	66,501,202
.....1951	121	42,255	43,233,489	14,450,609	58,731,057
Interprovincial.....1950	7	100,412	83,007,082	11,733,902	95,193,757
.....1951	7	120,421	72,909,845	10,117,926	84,388,511
Totals.....1950	2,495	1,173,126	903,638,962	206,682,408	1,015,264,763
.....1951	2,348	1,154,235	769,264,824	209,985,815	989,459,832

¹ Includes other revenue.

Service Co-operatives.—Co-operatives are organized throughout Canada to provide members with distinct services such as seed-cleaning, transportation lodging, rural electrification, etc. Most of these types of co-operatives are fairly new and many are operated as special departments of the larger and older marketing and purchasing associations. The most important co-operatives in recent years are those being organized in Quebec and Alberta to provide electric power to rural families. Housing co-operatives are especially prominent in Nova Scotia and Quebec. Transportation co-operatives exist mainly in British Columbia.

In 1951, reports were received from 324 service co-operatives throughout Canada. Membership in these associations totalled 216,779 and the total revenue from services rendered amounted to \$9,281,279.

Fishermen's Co-operatives.—Fishermen on the Atlantic and the Pacific Coasts are organized co-operatively for the marketing of fish and fish products and for the purchasing of fishermen's supplies and consumer goods. In recent years, co-operative organizations and associations of fishermen on the Great Lakes and on the inland lakes of Manitoba and Saskatchewan have been reported and are making good progress.

In 1951, 96 fishermen's co-operatives reported a total membership of 15,412 and a total volume of business amounting to \$18,809,860: over one-half of this volume was reported by co-operatives in British Columbia.

Insurance.—Farmers' mutual fire-insurance companies are the oldest form of co-operative endeavour among farmers in Canada. During 1950, there were 404 such companies in operation. The net amount of insurance at risk was almost \$2,500,000,000 and the net losses paid in 1950 amounted to \$6,800,000.

Many other companies in Canada are now operating, on a co-operative basis, in the fields of life insurance, casualty insurance, marine insurance and bonding for credit union treasurers and co-operative managers. The most recent addition to the list is the Co-operative Fire and Casualty Insurance Company which obtained a charter from the Federal Government in 1951 and commenced business in 1952.

Section 6.—Interprovincial Freight Movements*

Statistics on interprovincial trade are difficult to collect because there are no barriers to this trade. The only comprehensive statistics available are the loadings and unloadings of freight carried by the railways. Railway traffic is segregated into 76 classes of freight and the differences between loadings and unloadings are the imports and exports *by rail* for the respective provinces. Freight can, however, be imported by rail and exported by water, as is the case with western grain moved to the Ontario ports of Fort William and Port Arthur. Consequently, the statistics of Table 37 must not be taken as a measure of total interprovincial trade: these figures indicate interprovincial movement of railway freight which is one aspect only of that trade.

* Revised in the Transportation Section, Public Finance and Transportation Division, Dominion Bureau of Statistics.

37.—Railway Revenue Freight Movement, by Provinces, 1950 and 1951

Province	Loaded		Received from Foreign Connections		Totals Originated ¹	
	1950	1951	1950	1951	1950	1951
	tons	tons	tons	tons	tons	tons
Newfoundland.....	925,311	1,068,291	519	—	925,830	1,068,291
Prince Edward Island.....	310,606	417,778	—	—	310,606	417,778
Nova Scotia.....	10,208,321	10,289,032	128,538	181,406	10,336,859	10,470,438
New Brunswick.....	3,661,704	5,012,561	631,636	686,421	4,293,340	5,698,982
Quebec.....	18,521,675	21,103,335	8,006,179	8,308,306	26,527,854	29,411,641
Ontario.....	36,859,583	41,667,045	25,441,292	27,315,222	62,300,875	68,982,267
Manitoba.....	6,202,335	7,967,961	446,568	480,974	6,649,403	8,448,935
Saskatchewan.....	9,244,746	12,045,777	203,517	176,773	9,448,263	12,222,550
Alberta.....	12,365,162	11,880,807	38,296	50,712	12,403,458	11,931,519
British Columbia.....	9,895,058	10,510,464	939,077	1,089,773	10,834,135	11,600,237
Totals.....	108,195,001	121,963,051	35,835,622	38,289,587	144,030,623	160,252,638

For footnote, see end of table, p. 904.

37.—Railway Revenue Freight Movement, by Provinces, 1950 and 1951—concluded

Province	Unloaded		Delivered to Foreign Connections		Totals Terminated ¹	
	1950	1951	1950	1951	1950	1951
	tons	tons	tons	tons	tons	tons
Newfoundland.....	796,955	998,757	201,380	175,449	998,335	1,174,206
Prince Edward Island.....	413,722	421,741	5,573	1,976	419,295	423,717
Nova Scotia.....	8,319,547	8,399,702	460,259	574,930	8,779,806	8,974,632
New Brunswick.....	3,164,849	3,600,243	1,823,232	2,345,147	4,988,081	5,945,390
Quebec.....	19,866,250	23,763,836	7,165,920	9,770,607	27,032,170	33,534,443
Ontario.....	46,546,363	52,156,726	23,696,458	26,763,532	70,242,821	78,920,258
Manitoba.....	7,483,403	7,329,550	626,360	808,884	8,109,763	8,138,434
Saskatchewan.....	5,749,749	4,437,152	949,451	924,834	6,699,200	5,361,986
Alberta.....	5,114,248	5,086,241	27,294	21,780	5,141,542	5,108,021
British Columbia.....	7,699,375	8,209,047	3,553,300	4,622,387	11,252,675	12,831,434
Totals.....	105,154,461	114,402,995	38,509,227	46,009,526	143,663,698	160,412,521

¹ Figures for freight originating and freight terminating do not agree because freight which originates within a certain year does not all terminate within the same year; some that terminated in 1951, for instance, originated within the previous year.

PART II.—GOVERNMENT AIDS TO AND CONTROL OF DOMESTIC TRADE

During the post-war period, the elaborate system of government control of trade that the war effort made necessary was gradually relaxed (*see* the 1948-49 Year Book, pp. 837-841) until, by the beginning of 1949, only those measures to protect domestic requirements and prevent the forcing upward of prices in the Canadian market remained; since then even these have practically disappeared.

Section 1.—Controls Affecting the Handling and Marketing of Grain

The agencies exercising control of the grain trade in Canada include the Board of Grain Commissioners, which since 1912 has administered the provisions of the Canada Grain Act, and the Canadian Wheat Board, which operates under the Canadian Wheat Board Act, 1935. The former is a quasi-judicial and administrative body which, through the powers vested in it in matters of interprovincial transportation and patents and copyrights, gives the Federal Government complete power to control the handling of grain; it has no power or duties in respect of grain prices. The Canadian Wheat Board, which began to function in the autumn of 1935, was a natural outgrowth of government stabilization measures that were taken during the depression years of the 1930's in regard to the marketing of grain crops. During this period the Government acquired a considerable quantity of wheat and, in the 1935 session of Parliament, legislation was passed to serve the double purpose of disposing of the holdings so acquired and, at the same time, arranging for the marketing of new crops.

An account of the organization and functions of the Board of Grain Commissioners appears at pp. 481-482 of the 1941 Year Book. An article on the operations of the Canadian Wheat Board is included in the 1939 Year Book, pp. 569-580, and concluded in the 1947 edition.

Section 2.—Combinations in Restraint of Trade*

Federal legislative measures for aiding and regulating trade include specific prohibitions of operation against the public interest by monopolies and similar commercial combinations. Monopolistic trade arrangements tending to eliminate competition in price, supply or quality of goods, and thereby to restrain trade unduly, are illegal under the Combines Investigation Act and Sect. 498 of the Criminal Code. These laws are designed to promote reasonable competitive opportunities for the expansion of production, distribution and employment.

The first federal legislation in this field was enacted in 1889 and is still effective in amended form as Sect. 498 of the Criminal Code. Legislation providing for investigation of trusts or combines was first enacted in 1897 as part of the Customs Tariff Act. In 1910 a separate Combines Investigation Act was passed and further legislation was enacted in 1919 and 1923.

The Combines Investigation Act.—The Combines Investigation Act (R.S.C. 1927, c. 26), enacted in 1923 and amended in 1935, 1937, 1946, 1949, 1950, 1951 and 1952, provides for the investigation of trade combinations, monopolies, trusts or mergers alleged to have operated to the detriment of the public through limiting production, fixing or enhancing prices, limiting competition or otherwise restraining trade. Organizations of this nature are defined by the Act as 'combines', and participation in the formation or operation of a combine is an indictable offence. In line with recommendations contained in a final report by the Committee to Study Combines Legislation, certain amendments effective Nov. 1, 1952, revised the administrative organization by separating into two parts the functions formerly exercised by the Commissioner of the Combines Investigation Act with an agency for investigation and research and a board of three members to appraise the evidence obtained in investigations and report thereon. The former Commissioner of the Combines Investigation Commission became the new Director of Investigation and Research, with authority to initiate investigations respecting practices alleged to be offences under the Combines Investigation Act or under Sect. 498 or 498A of the Criminal Code which concern offences related to those covered by the Combines Investigation Act. The board is known as the Restrictive Trade Practices Commission and the following persons have been appointed as members: C. Rhodes Smith, Q.C., Chairman, formerly Attorney-General of Manitoba; Guy Favreau, a member of the Quebec Bar; and A. S. Whiteley, an economist who served as Deputy Commissioner under the Combines Investigation Act. Other amendments removed limitations on possible fines and permitted the Courts to prohibit continuation or repetition of an offence. Amendments made to the Combines Investigation Act in 1951 adopted recommendations contained in the interim report of the Committee to Study Combines Legislation by prohibiting the practice of resale price maintenance.

The report to the Minister of Justice of an investigation into the manufacture, distribution and sale of matches in Canada, submitted in December 1949, alleged that a combine by way of merger, trust or monopoly existed in the wooden match industry in Canada. Four formal charges were preferred under the Combines Investigation Act. The trial of the first charge concluded at Montreal in May 1951 with the five corporation defendants being convicted and fined a total of \$85,000

* Revised by T. D. MacDonald, Q.C., Director of Investigation and Research, Combines Investigation Act, Department of Justice, Ottawa.

and costs. The fine included imposition of the maximum penalty of \$25,000 each against the Eddy Match Company Limited and Valcourt Company Limited, with Commonwealth Match Company Limited being fined \$15,000 and two other defendants controlled by the Eddy Match Company Limited being fined \$10,000 each. The costs and expenses were ordered to be paid by the five defendants on a similarly apportioned basis. An appeal against judgment and sentence is pending and will probably come before the courts in January 1953. Trial of the remaining three charges is awaiting disposal of the appeal.

In a report of a special commissioner made in November 1948, a combine was alleged to exist in the bread-baking industry in the Provinces of Saskatchewan, Alberta and British Columbia. Prosecution was instituted in Alberta on the direction of the Minister of Justice against McGavin Bakeries Limited, two McGavin Limited companies, Canadian Bakeries Limited, Weston's Bread and Cake (Canada) Limited, and Edmonton City Baking Limited. On Oct. 2, 1951, all six bakery corporations charged were found guilty, as charged under Sect. 498 of the Criminal Code, with total penalties of \$30,000 and costs being imposed. An appeal has been filed against the judgment. Costs of the Crown have, in part, been assessed by the Taxing Officer, but it is expected that an application will be made to the trial judge for directions in respect of items not yet taxed.

A report was submitted to the Minister of Justice on May 21, 1952, alleging the existence of combines in six divisions of the rubber industry. The report named the Rubber Association of Canada and nineteen rubber companies as being members of one or more of the alleged combines. Decision to prosecute was announced by the Minister on Nov. 7, 1952.

On July 7, 1952, a report was submitted to the Minister advising that, at the time of commencement of inquiry, a combine existed on the part of certain members of a bakery workers' union to prevent or lessen competition in the distribution and sale of bread in the Winnipeg area. On Aug. 29, 1952, in view of the particular facts of the case and the additional circumstance that no useful purpose would be served by commencing a prosecution against the members of the local union, the Minister stated that it was not the intention of the Department of Justice to commence proceedings against the parties named in the report.

Another report, comprising the results of an investigation into the fine paper industry was submitted to the Minister of Justice on Oct. 23, 1952. The latter report named seven manufacturers and 37 fine paper merchants as having been parties or privy to or knowingly assisted in the operation of a combine or combines within the meaning of the Combines Investigation Act. On Nov. 6, 1952, the report was made public by the Minister, who stated that as soon as he had examined it carefully and received the opinion of counsel he would make a further announcement as to whether proceedings would be instituted against parties to the alleged combine.

During 1951 and 1952 a variety of matters was disposed of on preliminary inquiry while in a number of other cases investigations were proceeding. Numerous consultations and interviews were held with individuals and representatives of business groups interested in discussing the possible application of the Act to conditions encountered or to arrangements being considered. During 1952, the Commission has represented Canada at meetings of the Ad Hoc Committee on

Restrictive Business Practices, established under resolution of the United Nations Economic and Social Council to formulate proposals for an international convention to be considered by the Economic and Social Council.

Section 3.—Trade Standards*

The Standards Division of the Department of Trade and Commerce consolidates, under one Director, the administration of the Electricity Inspection Act, the Gas Inspection Act, the Electricity and Fluid Exportation Act, the Precious Metals Marking Act, and the Weights and Measures Act.

Commodity Standards.—On Nov. 26, 1949, Parliament passed the National Trade Mark and True Labelling Act which provides a framework for the development of the National Standard and true labelling in order to circumvent public deception in advertising.

In brief, the use of the National Standard is voluntary, and compliance with commodity standards affects only those manufacturers who desire to use the national trade mark. In addition, where manufacturers label descriptively any commodity or container, it must be labelled accurately to avoid public deception. One such regulation of interest applies to the labelling of fur garments, and has established itself as a code of fair practice throughout the merchandising field.

Under the terms of the Precious Metals Marking Act, 1946 (c. 26), commodities composed of gold, silver or platinum may be marked with a quality mark which describes accurately the quality of the metal. Where such mark is used, a trade mark registered in Canada, or for which application for registration has been made, must also be applied. Gold-plated, silver-plated or platinum-plated articles may also be marked under certain conditions outlined in the Act. The inspection staff of the Standards Division is engaged in the examination of advertising matter, in verifying the quality of articles offered for sale and in checking the marks applied.

Weights and Measures.—The Weights and Measures Act prescribes the legal standards of weight and measure for use in Canada. Responsibilities under the Act require control of the type of all weighing and measuring devices used for commercial purposes, their periodic verification and surveillance directed towards the elimination of sales by short-weight or short-measure.

The number of inspections made in the year ended Mar. 31, 1951, was 481,088, compared with 485,452 in 1949-50. The more important inspections comprised the following: weighing machines, including scales of all kinds, 231,431; measuring machines for liquids, 68,328; other weights, 128,454; other measures, 52,875. Total expenditure was \$576,041 in 1950-51, compared with \$512,539 in 1949-50 and total revenue \$499,455 compared with \$472,282.

Electricity and Gas Inspection.—Responsibilities of the Standards Division under the Electricity Inspection Act and the Gas Inspection Act comprise the control of the types of electricity meters and gas meters used throughout Canada, and the testing and stamping of every meter used for billing purposes, the object being to ensure the correct measurement of all electricity and gas sold. Canada is divided into 23 districts for administration of the two Acts, and staff numbers 156. During the year ended Mar. 31, 1952, 910,068 electricity and gas meters were tested as compared with 920,162 in the preceding year. Revenue derived from the testing amounted to \$657,548 and expenditure to \$549,048.

* Prepared by R. W. MacLean, Director, Standards Division, Department of Trade and Commerce.

1.—Electricity and Gas Meters in Use, Years Ended Mar. 31, 1943-52

Year	Electricity Meters	Gas Meters				Total
		Manu- factured Gas	Natural Gas	Acetylene Gas	Petroleum Gas	
	No.	No.	No.	No.	No.	No.
1943.....	2,228,716	532,160	197,585	4	1,278	731,027
1944.....	2,268,500	540,240	201,522	4	1,392	743,158
1945.....	2,348,150	552,411	208,046	4	1,529	761,990
1946.....	2,459,672	550,949	215,330	4	1,651	767,934
1947.....	2,647,040	560,046	225,952	4	1,725	787,727
1948.....	2,746,685	587,629	217,068	3	1,046	805,746
1949.....	2,972,725	600,923	227,393	3	4,006	832,325
1950.....	3,138,013	606,395	239,448	4	3,841	849,688
1951 ¹	3,405,432	610,096	252,468	5	33	862,602
1952 ¹	3,590,422	609,262	263,130	5	68	872,465

¹ Includes Newfoundland.

The Electricity and Fluid Exportation Act came into force in 1907. Under its provisions no electric energy or fluid, whether liquid or gaseous, may be exported from Canada without a licence. Total exports of electric energy during the year ended Mar. 31, 1952, amounted to 2,478,022,630 kwh. There was also a small export of natural gas and crude oil.

Section 4.—Patents, Copyrights and Trade Marks*

Letters patent are issued subject to the provisions of the Patent Act, 1935 (25-26 Geo. V, c. 32) as amended by 11 Geo. VI, c. 23. Applications for protection relating to patents should be addressed to the Commissioner of Patents, Ottawa.

2.—Patents Applied for, Granted, etc., Years Ended Mar. 31, 1946-51

Item	1946	1947	1948	1949	1950	1951
Applications for patents..... No.	14,778	16,922	16,585	12,751	13,172	14,324
Patents granted..... "	7,412	6,590	7,175	7,959	8,513	8,461
Granted to Canadians..... "	495	520	580	570	655	627
Caveats granted..... "	421	438	313	326	356	391
Assignments..... "	8,964	11,063	13,656	13,325	12,811	11,437
Fees received, net..... \$	421,539	452,193	631,929	625,451	636,772	661,069

The number of Canadian patents granted increased fairly steadily each year from 4,522 at the beginning of the century to a peak of 12,542 in 1923 and has remained between 6,500 and 8,600 for the last ten years. Of the 8,461 patents granted in 1950-51, 6,289 or 74 p.c. were to inventors resident in the United States, 627 to Canadian residents, 929 to residents of the United Kingdom and other Commonwealth countries. Residents of France obtained 131, of Switzerland 109, of Holland 131, and of other countries 245.

* The material relating to patents and copyrights was revised by J. W. T. Michel, Commissioner of Patents, and that relating to trade marks by J. P. McCaffrey, Registrar of Trade Marks, Department of the Secretary of State, Ottawa.

Printed copies of patents issued from Jan. 1, 1949, to date are available at a nominal fee. The Canadian *Patent Office Record* gives a brief digest of each patent.

Canadian and foreign patents may be consulted at the Patent Office Library. The Library has records of British patents and abridged specifications thereof from 1617 to date, and of United States patents from 1872 to date, as well as many patents, indexes, journals and reports from Australia, New Zealand, South Africa, India, Pakistan, France, Belgium, Austria, Norway, Hungary and Mexico.

Copyrights, Industrial Designs and Timber Marks.—Registration of copyright is governed by R.S.C. 1927, c. 32, and applications for protection relating to copyrights should be addressed to the Commissioner of Patents, Ottawa.

The Copyright Act of 1921 (consolidated in R.S.C. 1927, c. 32) sets out, in Sect. 4, the qualifications for a copyright and, in Sect. 5, its duration: "Copyrights shall subsist in Canada . . . in every original literary, dramatic, musical and artistic work, if the author was, at the date of the making of the work, a British subject, a citizen or subject of a foreign country which has adhered to the Berne Convention and the additional Protocol. . . or resident within His Majesty's Dominions. The term for which the copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death".

Copyright protection is extended to records, perforated rolls, cinematographic films, and other contrivances by means of which a work may be mechanically performed. The intention of the Act is to enable Canadian authors to obtain full copyright protection throughout all parts of the Commonwealth, in foreign countries of the Copyright Union and in the United States of America, as well as in Canada.

Protection of industrial designs and of timber marks is afforded under the Trade Mark and Design Act (R.S.C. 1927, c. 201) and amendments, and the Timber Marking Act (R.S.C. 1927, c. 198) and amendments. Registers of such designs and marks are kept by the Copyright Branch of the Patent Office and information regarding them is published in the Canadian *Patent Office Record*.

3.—Copyrights, Industrial Designs and Timber Marks Registered, Years Ended Mar. 31, 1946-51

Item	1946	1947	1948	1949	1950	1951
Copyrights registered..... No.	3,823	4,102	4,002	4,219	4,488	4,700
Industrial designs registered..... "	525	769	730	795	653	628
Timber marks registered..... "	5	15	7	20	7	4
Assignments registered..... "	374	494	385	338	426	512
Fees received, net..... \$	17,818	18,838	17,880	17,784	19,325	19,848

Trade Marks and Shop Cards.—The Trade Marks Office, a Branch of the Department of the Secretary of State, is charged with the administration of the Unfair Competition Act, 1932, which repealed all previous Acts governing trade marks, and the Shop Cards Registration Act, which came into force on Sept. 1, 1938. Applications for registration of trade marks and shop cards should be addressed to the Registrar, Trade Marks Office, Ottawa.

A register of Trade Marks is kept, in which, subject to the provisions of the Act, any person may cause to be recorded any trade mark he has adopted and notification of any assignments, transmissions, disclaimers and judgments relating

to such trade mark. In order that the public may be kept informed in the matter of trade-mark registration, a list of registered trade marks appears in the Canadian *Patent Office Record* which is issued weekly.

The Shop Cards Registration Act is designed to afford a measure of protection to organizations, such as trade unions, that were able formerly to register their particular designations as Union Labels under the Trade Mark and Design Act. Registrations under the Act may be renewed every 15 years.

4.—Trade Marks and Shop Cards Registered, Years Ended Mar. 31, 1946-51

Item	1946	1947	1948	1949	1950	1951
Trade marks registered.....No	1,952	2,703	2,992	3,936	3,408	3,309
Trade-mark registrations assigned... "	971	1,241	1,473	1,719	1,485	1,665
Trade-mark registrations renewed... "	898	1,206	2,302	2,033	2,064	2,085
Certified copies prepared..... "	475	555	570	529	642	699
Shop cards registered..... "	1	—	4	—	1	1
Fees received, net..... \$	107,448	127,037	133,707	122,147	132,228	132,744

Section 5.—Subventions and Bounties on Coal*

Subventions have been regulated during past years by Orders in Council authorizing the payment of certain rates of assistance, in respect of the various movements of coal specified therein, from moneys voted annually by Parliament for that purpose. It has not been considered practicable to fix subvention aid by statute owing to the frequent changes in the competitive situation.

5.—Expenditure for Subventions, by Provinces, 1946-51

Province	1946	1947	1948	1949	1950	1951
Nova Scotia.....ton	471,054	296,599	1,403,306	1,853,604	1,165,719	2,286,537
\$	486,661	141,156	954,846	2,435,111	1,005,438	3,074,466
New Brunswick.....ton	2,555	2,528	724	3,025	2,314	2,709
\$	2,065	1,698	724	3,838	1,939	2,634
Saskatchewan.....ton	15,736	12,559	31,787	94,957	173,694	165,086
\$	14,972	11,923	25,366	64,933	125,767	126,042
Alberta and eastern British Columbia.....ton	850,314	252,076	282,608	441,938	785,148	589,581
\$	1,359,506	532,139	635,253	897,970	1,482,202	1,163,937
British Columbia bunker and export.....ton	13,775	9,294	5,728	36,170	6,092	91,611
\$	10,331	6,971	4,296	29,893	4,569	88,551
Totals.....ton	1,353,434	573,056	1,724,154	2,429,692	2,132,970	3,135,523
\$	1,873,535	693,887	1,620,487	3,431,745	2,619,915	4,455,629

The Coke Bounty Act, 1930 (20-21 Geo. V, c. 6), implemented one of the recommendations of the Royal Commission on Maritime Claims and was approved by Parliament on May 30, 1930. The bounty is paid on Canadian coal converted to coke and used in the manufacture of Canadian iron and steel and places the coal on a basis of equality with imported coal.

* Prepared by F. G. Neate, Executive Secretary, Dominion Coal Board, Ottawa. Additional information on subventions and bounties, summarized from the *Report of the Royal Commission on Coal, 1946*, is given in the Year Book 1947, pp. 770-771.

Bounties paid under this authority for the five years 1947-51 were as follows:—

	1947	1948	1949	1950	1951
Quantity.....ton	555,386	712,150	740,288	830,752	810,608
Amount.....\$	275,139	352,514	366,443	411,222	401,251

Section 6.—Control and Sale of Alcoholic Beverages*

The provincial liquor control Acts have been constituted to establish provincial monopolies of the retail sale of alcoholic beverages, with the practical elimination therefrom of private profit. Partial exception is made in the retail sale of beer by brewers, or others which certain provinces permit, while reserving regulative rights and taxing such sales heavily. The provincial monopoly extends to the retail sale and not to the manufacture of alcoholic beverages. The original liquor control Acts have been modified from time to time as deemed advisable.

The distilled liquor industry produces not only beverage spirits but also industrial alcohol such as (1) unmatured, denatured by distillers, used in anti-freeze and numerous other items, and (2) unmatured, non-denatured, used in chemical compounds, pharmaceutical preparations and vinegar. Production of industrial alcohol (denatured and non-denatured) totalled 6,474,056 pf. gal. in 1950, a decrease of 1,061,042 pf. gal. from 1949. Beverage spirits produced in 1950 and placed in bond for maturing totalled 15,147,458 pf. gal. as compared with 14,251,996 pf. gal. the previous year. Sales in 1950 of denatured alcohol for anti-freeze, solvents, cleaning fluids, perfume manufacturing, etc., amounted to 3,835,517 standard gal. as compared with sales of 3,538,803 standard gal. in 1949. Sales of 3,548,958 pf. gal. of non-denatured alcohol in 1950 were 1,070,503 pf. gal. higher than in 1949. Beverage spirits sold (domestic and export sales) amounted to 18,209,143 pf. gal. in 1950 and 15,371,626 pf. gal. in 1949.

Materials used show important changes. Wheat was the major item during World War II but in 1950, owing to restrictions resulting from world food problems, consumption declined to only 1,432 750 lb. from a peak of 402,535,232 lb. in 1944. Corn replaced wheat, increasing from 15,833,741 lb. in 1944 and 45,191,740 lb. in 1945 to 184,910,915 lb. in 1950. Wheat flour (alcomeal), introduced during the War and consumed to the extent of 77,268,410 lb. in 1944, ceased to be of importance in the later years.

Net Revenue from Liquor Control.—The provincial figures of net revenue shown in Table 6 include not only the net profit made by Liquor Control Boards or Commissions but also additional amounts of revenue received from permits, licences, etc., sometimes paid direct to the Provincial Governments.

The Federal Government, for the year ended Mar. 31, 1950, also collected in excise duties, customs duties, excise taxes, licence fees, etc., \$80,749,812 on spirits, \$59,754,546 on malt and malt products and \$2,713,057 on wines.† Corresponding collections for the year ended Mar. 31, 1951, were \$92,217,597 on spirits, \$68,234,475 on malt and malt products and \$2,921,321 on wines.

* Abridged from the D.B.S. report, *The Control and Sale of Alcoholic Beverages in Canada*, which gives an outline of federal and provincial legislation concerning the control and sale of alcoholic beverages.

† Excludes sales tax, details of which are not available for separate commodities.

6.—Net Revenue Received by the Provincial Governments from Liquor Control, by Provinces, Provincial Fiscal Years, 1942-51

NOTE.—These figures are for provincial fiscal years ended on the following dates: Nfld. and P.E.I., Mar. 31; N.S., Nov. 30, 1942-50, Mar. 31, 1951; N.B., Oct. 31, 1942-50, Mar. 31, 1951; Que., Mar. 31; Ont., Mar. 31; Man., Apr. 30, 1942-46, Mar. 31, 1947-51; Sask., Apr. 30, 1942-46, Mar. 31, 1947-51; Alta., Mar. 31; and B.C., Mar. 31.

Year	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec
	\$	\$	\$	\$	\$
1942.....	...	...	4,885,365	2,950,957	9,474,417
1943.....	...	...	5,613,367	3,054,932	12,332,540
1944.....	...	...	6,738,081	3,497,089	14,034,564
1945.....	...	174,975 ¹	7,428,911	4,247,301	17,120,638
1946.....	...	329,708 ¹	9,020,665	6,890,562	23,095,957
1947.....	...	529,698 ¹	8,241,986	6,879,632	20,715,052
1948.....	...	522,067 ¹	8,152,655	6,606,291	28,073,133
1949.....	...	550,720 ¹	8,154,114	6,483,537	27,457,579
1950.....	1,769,333	676,505 ²	7,465,126	5,471,929	27,667,648
1951.....	2,188,553	747,691 ²	2,564,811 ³	2,476,075 ⁴	30,507,208
	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	\$	\$	\$	\$	\$
1942.....	15,068,065	2,740,498	2,407,066	3,897,175	5,928,444
1943.....	18,546,285	3,738,980	3,030,953	5,050,216	8,145,795
1944.....	21,024,903	3,831,368	3,661,301	5,356,107	6,946,254
1945.....	19,181,266	4,379,365	4,162,775	6,026,112	7,881,497
1946.....	30,373,016	6,101,352	6,605,448	8,248,814	11,194,187
1947.....	34,998,052	6,527,122 ⁵	8,104,620 ⁵	9,705,075	14,725,990
1948.....	36,807,803	6,989,096	7,920,528	9,971,205	16,598,430
1949.....	38,293,602	7,291,043	8,545,831	11,198,668	18,073,763
1950.....	39,730,787	7,651,209	9,112,458	11,979,469	17,917,330
1951.....	41,194,387	7,208,346	8,720,284	12,194,142	18,773,139

¹ Wholesale Liquor Vendors.

² Prince Edward Island Temperance Commission.

³ Four

months ended Mar. 31.

⁴ Five months ended Mar. 31.

⁵ Eleven months ended Mar. 31.

Apparent Consumption of Alcoholic Beverages.—Accurate measurement of the consumption of alcoholic beverages by Canadians is practically impossible since no separate record is kept of sales to non-residents of Canada. Temporary additions to the resident population through tourist travel are, at certain seasons, extremely large. In 1951, for example, about 25,000,000 visitors crossed the International Boundary into Canada. Sales of alcoholic beverages to certain of these visitors undoubtedly reached considerable proportions.

In Tables 7, 8 and 9 an attempt is made to indicate the apparent consumption in Canada of spirits, beer and wine, respectively, on the basis of the quantities produced imported, exported, etc. It should be noted, however, that these figures take no account of increases or decreases in the quantities held in stock by the Liquor Control Boards or by licensees. For instance, the Boards may, in certain years, buy heavily to replenish stocks or create reserves; such purchases would unduly weight the consumption figures for those years.

Practically the total production of spirits is placed in bonded warehouses whence it is released for various purposes. The quantities shown in Table 7 as entered for consumption are released from warehouses, duty paid, presumably for consumption for beverage purposes in Canada. Only a small part of the output of beer is placed in warehouses. The available supply, as shown in Table 8, is, therefore, made up of production, changes in warehouse stock and imports. The apparent consumption of native wines as shown in Table 9 is obtainable by dividing the rates of excise tax into the total tax collections.

7.—Apparent Consumption of Beverage Spirits, Years Ended Mar. 31, 1943-51

NOTE.—Figures for the years 1924-40 are given at p. 532 of the 1941 Year Book and for 1941-42 at p. 891 of the 1950 edition. After 1942, a change was made in the method of computing apparent consumption of beverage spirits.

Year	Entered for Consumption	Add Imports	Deduct Re-Exports of Imported Spirits	Apparent Consumption
	pf. gal.	pf. gal.	pf. gal.	pf. gal.
1943.....	3,445,872	1,284,116	69	4,729,919
1944.....	2,620,297	823,422	3	3,443,716
1945.....	2,676,482	1,043,709	273	3,719,918
1946.....	4,087,690	1,775,935	113	5,863,512
1947.....	4,446,128	2,097,427	382	6,543,173
1948.....	4,632,506	2,691,302	3,420	7,320,388
1949.....	4,360,914	2,474,076	1,735	6,833,255
1950.....	4,608,926	2,361,141	169	6,969,898
1951.....	5,468,908	2,561,696	552	8,030,052

8.—Apparent Consumption of Beer, Years Ended Mar. 31, 1942-51

NOTE.—Figures for the years 1924-40 are given in the 1941 Year Book, p. 533, and for 1941 in the 1951 edition, p. 872.

Year	Production	Add Quantities Entered for Consumption from Warehouses	Add Imports	Deduct Quantities Placed in Warehouses	Deduct Domestic Exports	Apparent Consumption
	gal.	gal.	gal.	gal.	gal.	gal.
1942.....	101,081,682	755,456	86,122	6,777,839	5,639,946	89,505,475
1943.....	108,980,613	1,197,658	85,211	6,813,251	5,839,905	97,610,326
1944.....	104,062,427	726,817	61,634	7,536,054	6,604,977	90,709,847
1945.....	122,530,269	6,177,745	76,225	12,591,822	5,968,602	110,223,815
1946.....	138,941,170	2,596,574	26,550	6,910,528	4,567,667	130,086,099
1947.....	155,800,830	1,035,203	17,015	5,763,200	4,108,944	146,980,904
1948.....	173,201,842	3,368,130	36,662	6,839,460	4,024,332	165,742,842
1949.....	178,552,891	3,619,293	97,368	5,193,389	1,611,071	175,465,092
1950.....	182,718,898	4,093,562	111,181	4,151,391	1,329,747	181,442,503
1951.....	179,625,127	1,513,990	147,678	1,277,694	1,738,377	178,270,724

9.—Apparent Consumption of Wines, Years Ended Mar. 31, 1942-51

NOTE.—Figures for the years 1924-40 are given in the 1941 Year Book, p. 533, and for 1941 in the 1951 Year Book, p. 872.

Year	Domestic	Imported			Apparent Consumption, Domestic and Imported
	Apparent Consumption	Imports	Less Re-Exports	Apparent Consumption	
	gal.	gal.	gal.	gal.	gal.
1942.....	3,733,449	434,888	1,094	433,794	4,167,243
1943.....	4,192,903	434,699	35	434,664	4,627,567
1944.....	3,314,260	290,691	11,005	279,686	3,593,946
1945.....	3,409,303	303,153	—	303,153	3,712,456
1946.....	3,979,857	595,732	12	595,720	4,575,577
1947.....	4,655,734	928,664	—	928,664	5,584,398
1948.....	4,594,361	619,249	2	619,247	5,213,608
1949.....	4,020,542	690,679	235	690,444	4,710,986
1950.....	4,149,863	744,884	95	744,786	4,894,649
1951.....	4,348,733	851,591	24	851,567	5,200,300

PART III.—BANKRUPTCIES AND COMMERCIAL FAILURES

The three Sections of this Part, although closely related as far as subject matter is concerned, cover different aspects of the field of bankruptcies and commercial failures and the statistics presented in each Section are not comparable.

Section 1 is limited to the administration of bankrupt estates by the Superintendent of Bankruptcy, under the Bankruptcy Act (including the Farmers' Creditors Arrangement Act). This Section, however, gives definite information on the amounts realized from the assets as established by debtors and indicates that values actually paid to creditors are invariably very much lower than such estimates alone would imply. It can, therefore, be assumed that this applies in even greater degree to the more extended fields covered in Sections 2 and 3.

Section 2, on the other hand, is limited to bankruptcies and insolvencies made under federal legislation (the Bankruptcy Act and the Winding-Up Act) but not failures, sales, or seizures carried out apart from such federal legislation. The Dominion Bureau of Statistics figures include failures of individuals such as wage-earners. For recent years, separate data are shown for insolvencies by wage-earners as distinct from industrial and commercial mortalities. The figures of assets and liabilities are estimates made by the debtor and, unfortunately, are not made uniformly. The human element enters into them to a considerable degree and they should, therefore, be accepted with reservations.

The statistics given in Section 3 are compiled by Dun and Bradstreet, Incorporated. This mercantile agency is interested primarily in credit information and their statistics include bankruptcies in general, insolvencies under provincial companies' Acts and such proceedings as bulk sales, bailiffs' sales, landlord's seizures, etc., when loss to creditors results. On the other hand, the statistics do not include assignments of individuals, so that, as a rule, the totals run lower than those in Section 2. Since between the years 1875 and 1919 the agencies, now Dun and Bradstreet, Incorporated, were the only source of figures of commercial failures, their statistics have an added value because they present a historical series back to 1915 though the basis of classification was changed after 1933 (see text preceding Table 8).

Section 1.—Administration of Bankrupt Estates*

According to Sect. 91 of the British North America Act, "the exclusive legislative authority of the Parliament of Canada" extends to bankruptcy and insolvency legislation, and an Insolvency Act (32-33 Vict., c. 16) was passed by the Federal Parliament in 1869, and applied to the four original provinces. This Act was renewed by the Statutes of 1874, c. 46. In 1875, a new Insolvency Act (38 Vict., c. 16) applicable to the whole of Canada was passed, but was repealed in 1880. After this there was no federal legislation on the subject of bankruptcy until the Bankruptcy Act, 1919, except that under the Winding-Up Act insolvency was one of the grounds upon which a company could be wound up. In addition to regulating bankruptcy proceedings, the Bankruptcy Act, 1919, contained a provision which enabled an insolvent person, prior to bankruptcy, to make a proposal to his creditors. This provision was abrogated in 1923 but was subsequently restored, in part, by the Companies' Creditors Arrangement Act, 1933, which, however, restricted its operations to incorporated companies. Somewhat similar legislation was made available to farmers under the Farmers' Creditors Arrangement Act, 1934, subsequently

* Prepared by the Superintendent of Bankruptcy, Ottawa.

superseded by the Farmers' Creditors Arrangement Act, 1943. Federal insolvency legislation now comprises the Bankruptcy Act, 1949, the Farmers' Creditors Arrangement Act, 1943, the Companies' Creditors Arrangement Act and, to some extent, the Winding-Up Act. The two Arrangement Acts referred to above are designed to avert failure and the statistics in this Section and in Section 2, therefore, do not include proposals or arrangements under these Acts. When such proposals or arrangements are rejected by the creditors or fail in their purpose the proceedings may then come under the Bankruptcy Act, the bankruptcy provisions of the Farmers' Creditors Arrangement Act and, in certain circumstances, the Winding-Up Act. There are no provisions in the Companies' Creditors Arrangement Act for the liquidation or winding-up of insolvent companies.

The Bankruptcy Act, 1949, under which the Bankruptcy Act, 1919, and amendments thereto was repealed, restores to all insolvent persons the right to make a proposal prior to bankruptcy. The summary administration provisions of the Act, while new to Canadians, are to be found in English and Australian bankruptcy legislation and somewhat similar provisions are contained in the United States Bankruptcy Act. The purpose of summary administration is to enable insolvent persons, other than corporations, having limited assets to obtain the benefits of the Act. A new principle has also been established in regard to the discharge of bankrupts and the Act provides that "the making of a receiving order against, or an assignment by, any person except a corporation operates as an application for discharge" unless a waiver is filed in court and served upon the trustee within the prescribed delays.

The administration of bankrupt estates is supervised by the Superintendent of Bankruptcy, first appointed in 1932, with the object of conserving as far as possible the assets of bankrupt estates for the benefit of the creditors.

1.—Assets, Liabilities, Assets Realized and Cost of Administration in Bankrupt Estates Closed, 1941-50, and by Provinces, 1950

NOTE.—Figures for 1933-40 are given in the 1947 Year Book, p. 846.

Year and Province or City	Estates Closed	Assets Estimated by Debtor	Liabilities Estimated by Debtor	Total Realization	Cost of Administration	Percentage of Costs to Total	Paid to Creditors
	No.	\$	\$	\$	\$	p.c.	\$
1941.....	981	11,597,029	14,315,281	3,408,625	896,554	26.3	2,512,071
1942.....	879	10,994,748	12,023,215	2,393,661	772,995	32.3	1,620,666
1943.....	675	7,633,251	9,593,541	2,046,612	706,257	34.5	1,340,355
1944.....	468	3,495,148	6,154,052	1,196,725	425,121	35.5	771,604
1945.....	351	4,969,923	6,795,160	1,037,252	339,119	32.7	698,133
1946.....	299	3,030,599	4,716,747	1,202,650	281,999	23.5	920,651
1947.....	320	2,883,824	4,841,491	1,174,108	308,099	26.2	866,010
1948.....	450	6,440,256	10,816,776	2,461,557	672,127	27.3	1,789,430
1949.....	672	9,941,797	13,710,958	2,778,734	763,943	28.9	2,069,794
1950							
Newfoundland.....	—	—	—	—	—	—	—
Prince Edward Island.....	2	63,681	115,566	22,371	4,147	18.54	18,224
Nova Scotia.....	8	72,228	214,763	67,096	7,456	11.11	59,640
New Brunswick.....	8	85,453	108,383	26,836	5,870	21.87	20,966
Quebec ¹	287	4,253,788	6,096,275	1,508,532	364,792	24.18	1,143,740
Montreal.....	236	3,562,198	5,018,856	1,521,798	305,459	20.07	1,216,339
Ontario ²	55	1,061,556	1,244,508	421,897	86,028	20.39	335,869
Toronto.....	39	1,624,154	2,082,953	459,713	111,900	24.34	347,813
Manitoba.....	6	134,863	158,581	58,592	26,004	44.38	32,588
Saskatchewan.....	4	43,221	84,348	26,877	4,350	16.19	22,527
Alberta.....	2	28,433	71,194	10,358	3,220	31.09	7,138
British Columbia.....	31	795,852	1,106,740	323,581	57,114	17.65	266,467
Totals, 1950.....	678	11,725,427	16,302,167	4,447,651	976,340	21.95	3,471,311

¹ Exclusive of assets realized direct by secured creditors. The amounts so realized were approximately \$2,596,068 in 1942, \$1,799,722 in 1943, \$1,201,289 in 1944, \$1,811,803 in 1945, \$684,039 in 1946, \$582,811 in 1947, \$1,597,781 in 1948, \$2,534,369 in 1949 and \$2,722,285 in 1950.

² Exclusive of the city shown separately.

Table 1 continues and completes the series of statistics collected on estates closed under the Bankruptcy Act, 1919, and shown in the corresponding tables of previous Year Books. The figures given in Table 2 are those of estates closed under the new Bankruptcy Act, 1949. It will be noted that the Cities of Montreal and Toronto are no longer shown separately, figures for these centres being incorporated with the respective provinces.

2.—Assets, Liabilities, Assets Realized and Cost of Administration under the Bankruptcy Act 1949, for the year 1951

Province and Year	Estates Closed	Assets Estimated by Debtor	Liabilities Estimated by Debtor	Total Realization	Cost of Administration	Percentage of Costs to Total Realization	Paid to Creditors
1951							
UNDER GENERAL PROVISIONS OF THE ACT							
	No.	\$	\$	\$	\$	p.c.	\$
Newfoundland.....	2	54,707	58,580	29,993	3,633	12.11	26,360
Prince Edward Island.....	3	23,537	32,907	7,891	1,573	19.93	6,318
Nova Scotia.....	6	54,972	87,955	21,772	5,121	23.52	16,851
New Brunswick.....	15	106,132	153,597	39,495	13,693	34.67	25,802
Quebec.....	659	7,530,892	12,641,920	2,294,374	683,935	29.81	1,610,439
Ontario.....	131	4,843,690	8,381,013	2,435,876	610,535	25.06	1,825,341
Manitoba.....	12	258,002	479,533	145,104	32,272	22.24	112,832
Saskatchewan.....	8	79,230	114,398	33,607	6,007	17.87	27,600
Alberta.....	14	306,468	385,535	60,730	13,285	21.88	47,445
British Columbia.....	53	939,567	1,492,408	205,349	73,416	35.75	131,933
Totals.....	903	14,197,297	23,832,546	5,274,191	1,443,470	27.37	3,530,721¹
UNDER SUMMARY ADMINISTRATION PROVISIONS OF THE ACT							
	No.	\$	\$	\$	\$	p.c.	\$
New Brunswick.....	1	175	3,604	183	183	100.00	—
Quebec.....	75	41,391	391,218	20,343	14,853	73.01	5,490
Ontario.....	10	9,577	103,149	3,078	2,032	67.64	996
Saskatchewan.....	2	6,921	13,074	515	249	48.35	266
British Columbia.....	2	14,896	37,730	607	607	100.00	—
Totals.....	90	72,960	548,775	24,726	17,974	72.69	6,752²
PROPOSALS UNDER SECT. 27 OF THE ACT							
	No.	\$	\$	\$	\$	p.c.	\$
New Brunswick.....	1	2,425	2,337	2,425	100	4.12	2,325
Quebec.....	15	1,025,485	1,076,393	665,646	34,466	5.18	631,180
Ontario.....	2	97,700	91,711	31,555	5,402	17.12	26,153
British Columbia.....	1	22,627	20,114	2,417	315	13.03	2,102
Totals.....	19	1,148,237	1,190,555	702,043	40,283	5.74	661,760³

¹ In addition to the payments by the trustee, secured creditors valued their security or realized on it themselves without the intervention of the trustee to an amount of approximately \$4,108,276. ² In addition to the payments by the trustee, secured creditors valued their security or realized on it themselves without the intervention of the trustee to an amount of approximately \$10,979. ³ In addition to the payments by the trustee, secured creditors valued their security or realized on it themselves without the intervention of the trustee to an amount of approximately \$105,990.

Summary statistics of estates closed under the Farmers' Creditors Arrangement Act are available in previous editions of the Year Book beginning with the 1947 edition. From the time the Act first came into effect on Sept. 1, 1934, to the end of 1949 there were 885 assignments and 39 receiving orders, or a total of 924 estates closed. No assignments or receiving orders were reported under the Act in either 1950 or 1951.

Section 2.—Returns under the Bankruptcy and Winding-Up Acts as Compiled by the Dominion Bureau of Statistics

As previously stated, the figures in this Section cover only the bankruptcies and insolvencies under federal legislation—the Bankruptcy Act and the Winding-Up Act—and include assignments of individuals such as wage-earners.

Under the Bankruptcy and Winding-Up Acts (R.S.C. 1927, cc. 11 and 213), certain documents relating to estates administered under these Acts have, since July 1920, been forwarded to the Dominion Statistician for statistical analysis. A statistical series began with 1923, except for the analysis by branches of business, which began in 1924. However, changes in the administration of bankruptcies introduced by the Bankruptcy Act of 1949 (*see* p. 915) affected the comparability of the series. In that Act, provision was made for proposals from insolvent persons and, since July 1950, agreements made under this method are not included with the statistics of bankruptcies. In Table 3 the number of proposals are shown so as to give a general impression of the trend.

3.—Bankruptcies and Insolvencies under Federal Legislation, by Provinces, 1942-51

NOTE.—Figures for 1923-41 are given in the 1942 Year Book, p. 570.

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1942.....	...	2	9	8	456	192	19 ^r	26 ^r	11	14	737
1943.....	...	—	3	3	343	50	3	7	2	10	421
1944.....	...	—	3	—	222	33	1	3	4	11	277
1945.....	...	1	3	1	225	27	3	—	4	8	272
1946.....	...	1	3	2	236	20	—	—	4	12	278
1947.....	...	2	6	7	422	72	4	2	6	24	545
1948.....	...	1	9	13	613	116	8	4	8	41	813
1949.....	...	3	4	12	827	131	16	5	13	55	1,066
1950.....	3	8	17	20	967	186	16	9	16	61	1,303
1951.....	5	3	12	24	1,022	227	15	13	14	64	1,399
Proposals—1.....											
1950.....	—	—	—	2	66	7	1	—	—	3	79
1951.....	—	—	1	3	160	8	—	—	—	4	176

¹ See text above.

Wage-earner failures have been shown separately since 1949 and are given, by areas, in Table 4.

4.—Wage-Earner Failures, by Areas, 1949-51

Year	Atlantic Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Total
	No.	No.	No.	No.	No.	No.
1949.....	2	118	2	—	2	124
1950.....	—	121	9	—	2	132
1951.....	2	148	11	—	2	163

5.—Bankruptcies and Insolvencies under Federal Legislation, by Branches of Business, 1942-51

NOTE.—Figures for 1924-39 are given in the 1942 Year Book, p. 570, and for 1940-41 in the 1951 edition, p. 876.

Year	Trade	Manu- fac- turing	Agri- culture	Logging and Fishing	Mining	Con- struc- tion	Trans- por- tation and Public Utili- ties	Finance	Service	Not Classi- fied	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1942.....	342	80	14	—	10	58	17	2	181	33	737
1943.....	166	61	13	1	7	38	14	11	78	32	421
1944.....	83	47	4	2	3	27	11	7	62	31	277
1945.....	58	54	2	—	3	39	12	6	70	28	272
1946.....	77	57	2	4	3	32	14	7	64	18	278
1947.....	153	152	6	7	—	57	20	5	92	53	545
1948.....	289	183	9	4	3	77	30	4	144	65	813
1949.....	374	232	8	10	10	94	46	19	203	70	1,066
1950.....	502	257	24	7	5	97	40	20	273	78	1,303
1951 ¹	570	260	20	8	8	126	42	27	255	74	1,399

¹ Includes Newfoundland.

6.—Estimated Assets and Liabilities of Bankruptcies and Insolvencies, 1942-51

NOTE.—Figures for 1923-39 are given in the 1942 Year Book, p. 570, and for 1940-41 in the 1951 edition, p. 876.

Year	Estimated Total Assets	Estimated Total Liabilities	Year	Estimated Total Assets	Estimated Total Liabilities
	\$	\$		\$	\$
1942.....	4,500,195 ¹	6,019,308 ¹	1947.....	5,933,211	10,077,557
1943.....	3,107,839 ¹	5,339,523 ¹	1948.....	9,855,789	15,723,615
1944.....	2,020,302 ¹	4,043,864 ¹	1949.....	15,548,598	21,355,669
1945.....	1,864,359	3,995,109	1950.....	17,168,883	24,872,927
1946.....	4,039,339	5,966,153	1951 ¹	18,237,768	25,912,004

¹ Includes Newfoundland.

7.—Bankruptcies and Insolvencies, by Industries and Economic Areas, 1950 and 1951

Industry	1950						1951					
	Atlantic Prov- inces	Que.	Ont.	Prairie Prov- inces	B.C.	Total	Atlantic Prov- inces	Que.	Ont.	Prairie Prov- inces	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Trade—												
General stores.....	3	29	8	2	3	45	5	39	8	2	2	56
Grocery.....	6	45	9	—	—	60	4	45	11	3	2	65
Confectionery.....	3	23	3	1	—	30	—	21	3	1	2	27
Drink and tobacco..	—	3	—	—	1	4	—	7	3	—	—	10
Fish and meat.....	—	30	8	—	—	44	2	37	2	2	1	44
Boots and shoes.....	1	14	3	1	—	19	—	15	1	—	—	16
Dry goods.....	—	28	3	2	—	32	—	22	2	—	—	24
Clothing.....	6	46	12	2	1	67	—	54	13	4	4	75
Furniture.....	—	13	2	2	—	17	—	20	3	1	4	28
Books and stationery.....	—	14	—	1	—	15	—	17	2	1	—	20
Automobile.....	—	7	2	—	2	11	1	11	3	1	—	16
Hardware.....	—	8	2	—	1	11	3	11	6	2	1	23
Electrical apparatus.	—	13	2	—	—	15	4	20	2	—	1	27
Jewellery.....	1	15	2	1	—	19	—	13	7	2	—	27
Coal and wood.....	1	14	2	—	—	17	1	18	2	—	—	21
Drugs and chemicals	1	11	2	—	—	14	—	6	—	—	2	8
Miscellaneous.....	5	44	18	6	9	82	5	42	28	5	3	83
Totals, Trade....	27	363	77	18	17	502	25	403	96	24	22	570

7.—Bankruptcies and Insolvencies, by Industries and Economic Areas, 1950 and 1951 —concluded

Industry	1950						1951					
	Atlantic Prov- inces	Que.	Ont.	Prairie Prov- inces	B.C.	Total	Atlantic Prov- inces	Que.	Ont.	Prairie Prov- inces	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Manufacturing—												
Vegetable foods.....	—	26	9	3	—	38	—	26	7	1	1	35
Drink and tobacco...	—	—	—	—	—	—	—	2	—	—	—	2
Animal foods.....	—	13	2	—	—	15	1	13	2	—	2	18
Fur and leather.....	1	27	4	1	—	33	—	25	4	2	—	31
Pulp and paper.....	—	5	3	—	2	10	—	13	3	—	—	16
Textiles.....	2	24	1	—	—	27	—	25	—	—	1	26
Clothing.....	—	24	8	—	—	32	—	33	6	—	—	39
Lumber and manufactures.....	—	21	8	1	6	36	3	28	7	—	3	41
Iron and steel.....	—	9	3	—	—	12	1	12	2	1	—	16
Non-ferrous metals...	—	4	—	—	—	4	—	4	—	1	—	5
Non-metallic minerals.....	—	4	1	—	—	5	—	4	1	2	—	7
Drugs and chemicals	—	2	2	—	—	4	—	2	—	—	—	2
Miscellaneous.....	—	34	5	—	2	41	—	26	5	—	—	31
Totals, Manufacturing	3	193	46	5	10	257	5	213	37	7	7	269
Service—												
Garages.....	1	38	2	2	—	43	2	31	5	1	1	40
Other custom and repairs.....	1	40	4	2	1	48	1	34	7	—	1	43
Personal service.....	2	53	9	—	3	67	1	40	2	1	2	46
Restaurants.....	1	47	5	3	5	61	—	46	7	1	6	60
Professional service...	—	21	2	—	—	23	—	25	2	—	1	28
Recreational.....	—	5	—	1	2	8	—	8	1	—	1	10
Business service.....	—	18	4	1	—	23	—	24	3	—	1	28
Totals, Service...	5	222	26	9	11	273	4	208	27	3	13	255
Other—												
Agriculture.....	—	19	2	—	3	24	2	13	4	1	—	20
Mining.....	—	—	4	1	—	5	—	5	1	1	1	8
Logging, fishing and trapping.....	1	2	—	1	3	7	—	7	—	—	1	8
Construction.....	1	67	17	5	7	97	3	79	33	4	7	126
Transportation and public utilities....	2	31	5	—	2	40	2	28	7	—	5	42
Finance.....	1	16	2	—	1	20	—	19	4	—	4	27
Totals, Other....	5	135	30	7	16	193	7	151	49	6	18	231
Not classified.....	8	54	7	2	7	78	3	47	18	2	4	74
Grand Totals...	48	967	186	41	61	1,303	44	1,022	227	42	64	1,399

Section 3.—Industrial and Commercial Failures from Private Sources

A table on commercial failures for Canada, by classes, for the years 1915 to 1935 (and for Newfoundland for the years 1915-32), is given in the 1936 Year Book, p. 969. In 1936, Dun and Bradstreet, Incorporated, from whose reports these figures were taken, adopted a new method of classification. The principal changes consisted of setting up a new group of construction enterprises, previously included in manufacturing, and a new class for commercial service. Real estate companies, holding, and other financial companies, and agents of various kinds were omitted. These changes had the effect of confining the failure records more to industrial and commercial lines of activity, and liabilities were reduced more in proportion to the number of failures, since the companies eliminated usually ran high in indebtedness. This series extends back to 1934.

8.—Industrial and Commercial Failures, by Classes, 1941-51, and by Provinces, 1951

(Source: Dun and Bradstreet, Incorporated)

NOTE.—Figures for 1934-40 are given in the 1946 Year Book, p. 628.

Year and Province	Manu- facturing		Wholesale Trade		Retail Trade		Con- struction		Commercial Service		Totals	
	No.	Lia- bilities	No.	Lia- bilities	No.	Lia- bilities	No.	Lia- bilities	No.	Lia- bilities	No.	Lia- bilities
		\$'000		\$'000		\$'000		\$'000		\$'000		\$'000
Totals, 1941.....	130	2,419	42	539	614	3,118	55	519	41	364	882	6,959
Totals, 1942.....	87	3,630	33	516	393	2,499	61	526	35	173	609	7,344
Totals, 1943.....	36	2,357	7	137	96	500	32	519	15	121	186	3,634
Totals, 1944.....	33	1,042	12	242	33	514	15	265	3	56	96	2,119
Totals, 1945.....	37	1,511	7	246	26	250	20	240	5	58	95	2,305
Totals, 1946.....	41	2,684	19	421	41	451	21	231	8	216	130	4,003
Totals, 1947.....	126	3,815	42	1,225	84	882	36	941	16	365	304	7,228
Totals, 1948.....	158	6,734	62	1,395	198	2,278	48	899	27	449	493	11,755
Totals, 1949 ¹	177	8,406	69	3,516	247	3,252	63	1,329	40	776	596	17,279
Totals, 1950 ¹	159	6,479	70	1,746	349	4,347	89	1,415	50	1,405	717	15,392
1951												
Newfoundland.....	—	—	2	81	1	124	—	—	1	33	4	238
P. E. Island.....	1	34	—	—	2	27	—	—	—	—	3	61
Nova Scotia.....	1	329	1	10	6	51	1	27	1	46	10	463
New Brunswick.....	—	—	1	24	14	252	4	36	3	55	22	367
Quebec.....	122	3,280	44	1,980	237	2,937	78	1,580	39	1,318	520	11,095
Ontario.....	32	1,811	21	762	67	1,191	20	597	2	22	142	4,393
Manitoba.....	10	196	—	—	15	373	4	61	—	—	29	630
Saskatchewan.....	2	65	1	10	8	97	1	5	—	—	12	177
Alberta.....	—	—	—	—	12	166	2	34	—	—	14	200
British Columbia.....	6	694	2	25	25	475	6	220	2	20	41	1,434
Totals, 1951.....	174	6,409	72	2,892	387	5,693	116	2,560	48	1,494	797	19,048

¹ Includes Newfoundland—for last nine months only in 1949.

In 1951, Quebec accounted for 65 p.c. of the total failures and 58 p.c. of the liabilities; Ontario had 18 p.c. of the failures and 23 p.c. of the liabilities.

According to Dun and Bradstreet, Incorporated, commercial failures during World War II decreased steadily year by year. During those years, failures in the retail trade group, in which the majority of failures took place before the War, also decreased considerably. After the end of the War, however, the total number of failures increased again each year and failures in the retail trade group in 1951 accounted for almost one-half of the total.

9.—Industrial and Commercial Failures, by Divisions of Industry, 1949-51

(Source: Dun and Bradstreet, Incorporated)

NOTE.—Comparable figures back to 1934 are given in the corresponding tables of previous Year Books. Figures for Newfoundland are included from Mar. 31, 1949.

Industry and Division	Failures			Liabilities		
	1949	1950	1951	1949	1950	1951
	No.	No.	No.	\$'000	\$'000	\$'000
Manufacturing—						
Foods.....	12	15	15	1,332	988	317
Textiles.....	37	45	60	2,315	1,579	1,338
Forest products.....	40	40	41	1,499	1,606	2,324
Paper, printing and publishing.....	15	12	11	511	153	350
Chemicals and drugs.....	8	4	4	82	216	54
Fuels.....	1	4	—	6	243	—
Leather and leather products.....	10	9	5	361	639	230
Stone, clay, glass and products.....	7	2	5	276	33	41
Iron and steel.....	3	4	7	66	248	279

9.—Industrial and Commercial Failures, by Divisions of Industry, 1949-51—concluded

Industry and Division	Failures			Liabilities		
	1949	1950	1951	1949	1950	1951
	No.	No.	No.	\$'000	\$'000	\$'000
Manufacturing—concluded						
Machinery.....	16	7	7	1,131	398	631
Transportation equipment.....	2	1	1	70	3	329
All other.....	26	16	18	757	373	516
Totals, Manufacturing.....	177	159	174	8,406	6,479	6,409
Wholesale Trade—						
Farm products, foods, groceries.....	16	15	19	2,212	674	366
Clothing and furnishings.....	5	3	6	147	25	60
Dry goods and textiles.....	6	3	—	41	65	—
Lumber, building materials, hardware.....	5	13	6	183	221	201
Chemicals and drugs.....	—	4	3	—	96	101
Fuels.....	1	1	1	377	7	129
Automotive products.....	5	—	3	64	—	75
All other.....	31	31	34	492	660	1,960
Totals, Wholesale Trade.....	69	70	72	3,516	1,746	2,892
Retail Trade—						
Foods.....	60	94	98	598	999	1,155
Farm supplies, general stores.....	16	17	17	271	264	404
General merchandise.....	17	18	17	209	417	470
Apparel.....	45	60	54	565	869	653
Furniture, household furniture.....	24	20	39	283	169	745
Lumber, building materials, hardware.....	9	16	27	105	242	529
Automotive products.....	35	33	40	760	423	815
Restaurants.....	20	48	53	235	525	440
Drugs.....	1	5	3	1	65	59
All other.....	20	33	39	225	374	423
Totals, Retail Trade.....	247	349	387	3,252	4,347	5,693
Construction—						
General contractors.....	32	39	44	1,060	781	1,039
Carpenters and builders.....	3	3	9	31	22	147
Building sub-contractors.....	26	47	59	200	612	1,267
Other contractors.....	2	—	4	38	—	107
Totals, Construction.....	63	89	116	1,329	1,415	2,560
Commercial Service—						
Cleaners and dyers, tailors.....	5	7	7	71	37	40
Haulage, buses, taxis, etc.....	10	8	15	316	147	428
Hotels.....	7	9	9	284	429	563
Laundries.....	1	1	3	10	7	113
Undertakers.....	—	1	2	—	4	18
All other.....	17	24	12	95	781	332
Totals, Commercial Service.....	40	50	48	776	1,405	1,494
Grand Totals.....	596	717	797	17,279	15,392	19,048

CHAPTER XXI.—FOREIGN TRADE

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The subject of foreign trade covers more than the treatment of imports and exports of commodities, important though this is. In its broader sense, foreign trade is made up of the total international exchanges of goods, services, securities and other financial exchanges, all of which are presented in their proper relationship in this Chapter. Following Part I, which is a review of Canada's trade during 1950 and 1951, Part II gives detailed statistics of external commodity trade. Part III summarizes external transactions from the standpoint of the balance of international payments. Part IV outlines the various ways in which the Federal Government promotes and encourages trade relationships, and reviews the Canadian tariff structure.

PART I.—REVIEW OF FOREIGN TRADE

World trade remained at a high level in 1950 and 1951. In 1950 its value (expressed in United States dollars) was slightly greater than in 1949, and the value of trade in 1951 showed a further increase of about 36 p.c. Higher prices for the goods of most countries made an important contribution to the latter value gain, but the volume of world trade also expanded.

International trade prices, which had stabilized in 1949, were affected by new inflationary pressures after the outbreak of the Korean war. Military needs and precautionary buying increased the demand for many important industrial materials such as wool, tin, manganese, rubber and wood-pulp, and the increased raw material prices, in turn, affected the costs and prices of manufactured goods. The prices of raw materials generally reached their peak in the first half of 1951 and declined thereafter, contributing to the stabilization of other prices and to some declines.

Despite a relatively small population, Canada is one of the world's major trading nations. Statistics published by the International Monetary Fund and adjusted for international differences in valuation methods show that from 1946 to 1950 Canada's trade was surpassed only by that of the United States and the

United Kingdom, and in 1951 only by that of those countries and of France. The Federal Republic of Germany ranked fifth in world trade in 1950 and 1951. As economic recovery in Europe has progressed the shares of France and Germany in world trade, especially in export trade, have increased steadily, as have those of other western European countries. Canada's per capita trade is much greater than that of the other leaders in world trade, although it is lower than that of Hong Kong and New Zealand.

1.—World Trade, by Leading Countries, 1950 and 1951

Sources: International Monetary Fund, *International Financial Statistics*, October 1952, and United National Statistical Office, *Population and Vital Statistics Report*, Vol. IV, No. 4.

Country	1950 Total Trade	1951			Popu- lation	Trade per Capita
		Exports, f.o.b.	Imports, c.i.f.	Total Trade		
	U.S. \$'000,000	U.S. \$'000,000	U.S. \$'000,000	U.S. \$'000,000	'000	U.S. \$
United States.....	20,355	15,038	12,444	27,482	157,367	175
United Kingdom.....	13,617	7,580	10,954	18,534	50,613	366
France.....	6,145	4,161	4,523	8,684	42,239	206
Canada.....	6,297	4,038	4,194	8,232	14,009	588
Germany (Federal Republic)	4,685	3,461	3,495	6,956	51,460	135
Belgium and Luxembourg...	3,596	2,647	2,528	5,175	8,977	576
The Netherlands.....	3,477	1,978	2,567	4,545	10,264	443
Australia.....	3,038	2,204	1,911	4,115	8,431	488
Italy.....	2,691	1,644	2,169	3,813	46,598	82
Brazil.....	2,444	1,757	2,011	3,768	53,377	70
World Total¹.....	115,926	76,171	81,692	157,863	...	...

¹ Excluding the Union of Soviet Socialist Republics, China, and other communist countries not publishing trade statistics.

Canada's trade in 1951 was at its highest post-war level, being 27 p.c. above the previous record value of 1950 and 8 p.c. above the previous record volume of 1947. A sharp increase in United States demand for Canadian materials was the principal factor sustaining exports in 1950 despite declining overseas sales, and in 1951 exports to the United States maintained their 1950 level. Most of the increase in exports in 1951 was in sales to overseas countries. Commonwealth and European purchases of Canadian goods were reduced after 1949 owing to exchange difficulties but, with needs intensified in 1951 by shortages and by the international situation, Canadian foods and materials again went overseas in greater volume.

Imports in 1950 and 1951 were affected particularly by the high level of investment activity as well as defence needs in Canada. A great part of the mining and industrial machinery, structural steel, electrical apparatus and transport equipment needed for Canada's economic expansion must be imported, as must many materials and components for defence production. The high level of exports and of consumption in Canada also increased the need for imported materials and consumer goods. While the United States continued to supply the greater part of Canada's imports, the share in this trade of European countries and of Commonwealth countries, other than the United Kingdom, was higher than in earlier post-war years.

The international environment in which Canada trades has improved considerably in the post-war period. Reconstruction of the wartime damage in European and other countries has increased production in those countries and with greater production their exports have grown and, with exports, their capacity to pay for their imports. The exchange rate readjustments of September 1949 also contributed significantly to the improvement of trading conditions by bringing prices in various countries into more realistic relationships. The rapid rise in raw material prices after the Korean outbreak of hostilities temporarily eased the balance-of-payments difficulties of many countries in Asia, Oceania and South America. Incomes and inflationary pressures in these countries were also increased by the price rise and, when prices fell, severe payments problems developed for some countries in the latter half of 1951. Subsequent to a conference at London in January 1952, many Sterling Area countries announced new import restrictions, and some other countries have also intensified their trade controls. Nevertheless, barriers to the international exchange of goods were generally less at the beginning of 1952 than in most earlier post-war years, and the problems arising from inconvertible currencies were eased by greater imports of the dollar countries and by the operations of the European Payments Union.

Post-war Canadian Trade Policy.—Throughout the post-war period the Canadian Government has worked for the reduction and removal of the network of barriers to foreign trade which developed during and immediately after the War. To this end, Canada extended assistance to overseas countries which facilitated their post-war reconstruction. Canada has also participated in multilateral and bilateral negotiations on tariff matters and trade practices and has taken unilateral action to reduce and remove Canadian trade controls.

Loans to overseas countries were particularly large in 1946 and 1947. Under the Export Credits Insurance Act, 1944, the Government provided loans to foreign governments for the purchase of needed Canadian goods and, under the United Kingdom Financial Agreement Act, 1946, a credit of \$1,250,000,000 was extended to the United Kingdom for the purchase of Canadian goods in the reconstruction period. Net drawings on these credits totalled \$105,000,000 in 1945, \$750,000,000 in 1946, \$563,000,000 in 1947, and \$126,000,000 in 1948. In 1949, net credits used were \$107,000,000, and in 1950 only \$27,000,000. At the same time as Canada was providing large exports on credit, it was necessary to pay currently for current imports. This contributed to a sharp decline in Canada's exchange reserves, which necessitated the temporary imposition of emergency exchange conservation controls in November 1947 and prevented further commitments to overseas loans.

Repayment of Canada's post-war loans began in 1947 with the receipt of \$2,100,000 from Belgium, and most of the countries to which loans were made are now making regular repayments. The repayment of these loans implies a willingness on Canada's part to accept the imported goods in which alone real payment can be made. Table 2 shows the post-war loans authorized by the Canadian Government, net drawings on these loans, and repayments of principal received to the end of 1951 (all credits not drawn have now lapsed).

2.—Post-war Loans and Advances to Other Countries by the Canadian Government, and Repayments, 1947-51

(Millions of dollars)

Country	Loans Authorized ¹	Loans and Advances Drawn ²	Repayments of Principal			
			1947 and 1948 ³	1949	1950	1951
Export Credits—						
Belgium.....	100.0	68.0	4.2	2.3	2.3	2.3
China.....	60.0	51.0	—	2.0	0.8	—
Czechoslovakia.....	19.0	16.4	—	—	3.4	3.3
France.....	242.5	242.2	8.4	8.5	8.4	8.5
Indonesia.....	15.0	15.0	—	—	—	3.1
The Netherlands.....	125.0	118.8	5.8	—	2.7	2.6
Norway.....	30.0	23.3	—	—	2.6	—
Union of Soviet Socialist Republics.....	3.0	11.6	—	—	2.9	—
Totals, Export Credits.....	594.5	546.3	18.4	12.8	23.1	19.8
Loan to United Kingdom.....	1,250.0	1,185.0	—	—	—	14.0
Grand Totals.....	1,844.5	1,731.3	18.4	12.8	23.1	33.8

¹ Loan authorized under the Export Credits Insurance Act, 1944, and the United Kingdom Financial Agreement Act, 1946.

² Includes outstanding advances of \$3,700,000 to the Union of Soviet Socialist Republics under the War Expenditure and Demobilization Appropriation Act, 1945, but excludes accrued interest of \$19,800,000 and military relief credits settled by funding.

³ Repayments were made in 1948, except for \$2,100,000 received from Belgium in 1947.

The principal tariff negotiations in which Canada has participated have been those of the parties to the General Agreement on Tariffs and Trade. The first series of negotiations was held at Geneva in 1947; there, 23 countries (including Canada) agreed to the mutual exchange of most-favoured-nation tariff treatment, and to make certain specific reductions in their tariffs. Subsequent meetings at Annecy, in 1949, and Torquay, in 1950-51, saw the number of contracting parties increase to 34, and further significant reductions were negotiated in Canadian and foreign tariffs. Tariff concessions negotiated under the General Agreement remain in force until Jan. 1, 1954, and may be further extended past that date. Canada has also conducted negotiations with some non-members of the General Agreement on Tariffs and Trade. Besides the 34 countries included in the General Agreement, Canada exchanges most-favoured-nation treatment with 24 other countries, and preferential treatment with most Commonwealth countries and Ireland.

Canada has also reduced non-tariff trade barriers in force in this country. As capital inflows and a closer balance of trade with dollar and with non-dollar countries contributed to an increase in Canada's exchange reserves, the emergency exchange conservation controls were gradually relaxed until the last were abolished at the end of 1950. The exchange value of the Canadian dollar was unpegged in October 1950 to reduce speculation on possible changes in this value and, after a year of relatively moderate fluctuations in the exchange rate, foreign exchange control was abolished in Canada in December 1951. The only significant direct controls now imposed on Canadian trade exist for reasons of military security, rather than economic protection. Besides these official measures, the Canadian Government has encouraged the efforts of such private organizations as the Dollar-Sterling Trade Board to promote foreign trade.

Efforts have also been made to secure the reduction of non-tariff barriers to Canadian trade imposed by other countries. Some of these, such as many of the Sterling Area's restrictive measures, are necessitated by balance-of-payments problems that have resulted from the disturbed post-war economic situation. Others, such as United States quantitative restrictions on dairy-products imports, are purely protective in nature. While a measure of liberalization in the trade controls of the British West Indies was negotiated in 1950 and extended in 1951, and while the United Kingdom token import plan has kept some Canadian goods before the British public, nevertheless, much less progress has been made in persuading other countries to reduce non-tariff trade barriers than in the case of tariffs. The widespread use of direct import controls in the post-war world is, of course, owing to circumstances over which the Canadian Government has no control.

The Structure of Canadian Trade.—Foreign trade is based primarily on international differences in resources and on specialization. The influence of resources on trade is obvious, particularly in the case of natural products. Neither temperate nor tropical countries can raise all the wide range of agricultural products necessary for modern industry and required by consumers' tastes. Cotton and oranges must come from countries with warm climates while wheat and apples grow best in more temperate regions. Softwoods grow plentifully in northern climates, and most of the world's lumber, wood-pulp and paper is produced from softwoods, while tropical woods are chiefly prized for their hard texture and for the finish they will take. Mineral deposits as well as climatic differences are important. Few countries produce the whole range of minerals they require and, where mines are lacking, imports provide an alternative supply.

National specialization is also an important determinant of trade. Densely populated countries and countries with a large accumulation of capital tend to specialize in manufacturing industries, especially if they are deficient in important natural resources. Sparsely populated countries usually specialize in agriculture and in extractive industries if their resources permit, and within these categories further specialization by product is normal—on the Canadian prairies the emphasis is on wheat, although much wheat land could be used for stock-raising. In the field of manufactures the differences between the type of automobile produced in the United States and that produced in the United Kingdom are well known. In some cases manufacture is essential if resources are to be exploited—Canada's exports of aluminum are essentially exports of hydro-electric power, since it was power resources and not the domestic production of ore (bauxite, which is imported) that led to the establishment of this industry. Were it not for the production of aluminum much of this power would go unused.

In the manufactures field, particularly, many commodities are imported which could be (or are to some extent) produced in Canada. There are two simple reasons for this. Firstly, the Canadian home market is not sufficient to provide the full economics of large-scale production for some industries; therefore, many manufacturing industries can operate economically only if an export market is available. For some no export markets are readily available. Secondly, other industries in

Canada may provide more profitable employment for capital and labour. To export it is necessary to import—Canadian resources devoted to the production for export of newsprint, wheat, wood-pulp, lumber and base metals require that machinery, steel, fuels and textiles be imported if they are to receive payment. The high Canadian standard of living is based on the exchange of efficiently produced surpluses for goods which cannot be produced as efficiently or at all in Canada.

The statistics of leading exports and imports in Tables 11 to 14, pp. 943-961, reveal that the greater part of Canada's exports are raw or processed natural products, while in imports manufactured goods are more important. Farm implements, other machinery, automobiles and railway equipment are the chief manufactured exports, but these are much less important than shipments of such primary commodities as newsprint, wheat, wood-pulp, lumber, wheat flour and base metals. Many raw materials, such as petroleum, coal, cotton, wool and rubber, must also be imported to compensate for lack of sufficient conveniently located Canadian supplies or for the inability to produce these commodities in Canada. A great part of Canada's imports, however, are partly or fully manufactured goods, such as machinery, farm implements (especially tractors), iron and steel, textiles and electrical apparatus. Canada thus exchanges surplus resources for the surplus labour of other countries.

The importance of international trade to Canadian prosperity is emphasized by comparing it with population and national income. In 1951, Canada's exports were equal to \$283 for every man, woman and child in the country, and imports per capita reached \$292. Total trade per capita was \$575, a figure exceeded only in the case of Hong Kong and New Zealand, and far above the United Kingdom's \$386 and the United States' \$187. Of all the goods and services produced in Canada in 1951 no less than 18·7 p.c. was absorbed by merchandise exports, and of the goods and services available for current utilization (after allowance for maintenance of capital and other depreciation charges) 20·3 p.c. were exported as merchandise. The continued high level of merchandise trade in the post-war period has been an important determinant of Canada's prosperity.

Distribution of Canadian Trade.—One of the most prominent differences from pre-war in Canada's post-war pattern of trade has been the sharp increase in the proportion conducted with the United States. In the period 1946-50, 48 p.c. of Canada's exports went to this one market and 71 p.c. of the imports were drawn from this one source. In the inter-war period, 38 p.c. of exports went to the United States, and 65 p.c. of imports came from that country. The proportion of trade conducted with the United Kingdom has shown an equally marked decrease. In the inter-war period, 36 p.c. of Canada's exports went to the United Kingdom, as opposed to 23 p.c. in 1946-50, and 17 p.c. of imports were drawn from this source, as opposed to 10 p.c. in 1946-50.

One important reason for this change was World War II. Production in the United Kingdom was concentrated on military needs during the War even more so than in the United States and, in addition, the productive facilities of the United Kingdom suffered heavily from enemy attacks. At the end of the War, the United

Kingdom was faced with a major reconstruction task before she could again export in proportion to her import needs. The same was true of many other overseas countries, especially those of Europe. As a result, Canada was forced to obtain more imports from the United States, the main great producer to come through the war materially undamaged. Similarly, the United States was the one great market unhampered in its purchasing by exchange shortages or the need to pro-rate its imports. The greatest expansion in Canadian exports therefore, was in goods that could be sold readily in the United States.

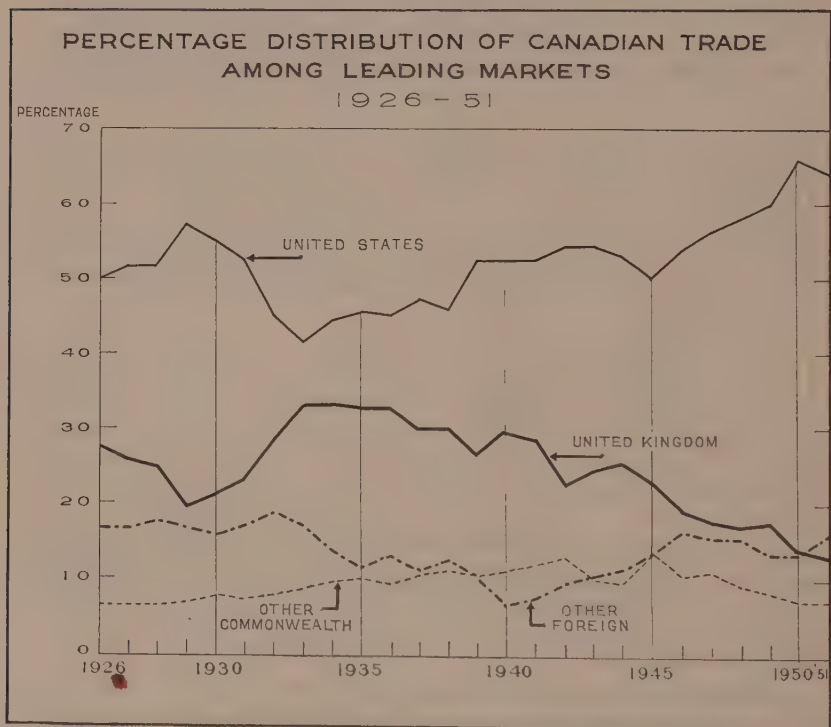


Table 3 shows the distribution of Canada's peacetime trade by five-year periods from 1919-20 to 1950, and gives comparative figures for 1951. The inter-war data relate to fiscal years, the post-war data to calendar years. In 1946-50 both the United States and Latin America provided a greater share of Canada's imports than in the inter-war periods shown, and the proportions drawn from the United Kingdom and from Europe were less than in any of the inter-war periods shown. Imports from the Commonwealth were a smaller proportion of the total than in 1934-35 to 1938-39, when preferential tariffs were of more importance, but their share was larger than in the other inter-war periods shown. By 1951, greater production elsewhere had reduced the proportion of imports drawn from the United States and increased that from Europe and "Others". However, the import pattern was still markedly different from that prevailing before World War II.

The changes in exports are equally marked. Exports to the United Kingdom and to other European countries were greater in the immediate post-war years than in 1951 owing to emergency post-war needs for foodstuffs and materials by those countries while their own productive facilities were being restored. Even in this period, however, their share of Canada's exports was lower than in most of the inter-war period (although Europe's share in exports decreased sharply during the period of high protection immediately preceding the War). Exchange difficulties restricted the Commonwealth's share in exports in 1951, although these were less important in the immediate post-war reconstruction period. As with imports, only the United States and Latin America have consistently accounted for a larger proportion of Canada's exports in the post-war years than in the inter-war period.

Before the War, Canada's trade was normally in marked bilateral imbalance. Most major currencies were then convertible and surpluses earned in trade with overseas countries could freely be used to meet deficits on trade with the United States. In the post-war period inconvertibility of currencies has restricted the opportunity for such transfers, and it has been necessary to achieve a better bilateral balance in trade. The shares of Canada's principal trading partners in exports and imports are still far from equal, but the discrepancy between the export and import shares is much less than in the inter-war period.

3.—Percentage Distribution of Imports and Domestic Exports, by Principal Countries and Trading Areas, 1919-39 and 1946-51

NOTE.—Trading areas adjusted for territorial changes. Thus the "Commonwealth" excludes Egypt, Iraq, Burma and Palestine in all years to maintain comparability. Newfoundland is also excluded from the table.

Period ¹	United States	United Kingdom	Other Commonwealth and Ireland	Europe	Latin America	Others
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Imports—						
1919-20 to 1923-24.....	69.8	15.8	4.3	4.2	4.1	1.6
1924-25 to 1928-29.....	66.1	16.7	5.0	7.1	3.1	1.7
1929-30 to 1933-34.....	63.1	17.8	6.2	8.1	2.7	1.9
1934-35 to 1938-39.....	59.6	19.3	9.8	6.2	2.9	1.8
1946-1950.....	71.2	10.3	7.0	2.7	7.0	1.5
1951.....	68.9	10.3	7.5	4.3	6.7	2.3
Domestic Exports—						
1919-20 to 1923-24.....	40.4	36.0	5.6	12.2	1.9	2.7
1924-25 to 1928-29.....	36.7	35.7	6.5	12.4	3.0	4.9
1929-30 to 1933-34.....	39.3	31.2	7.6	12.2	2.8	5.8
1934-35 to 1938-39.....	34.8	41.2	9.6	7.5	2.1	3.9
1946-1950.....	48.7	22.5	9.8	9.8	4.3	3.8
1951.....	58.7	16.1	6.7	8.9	5.3	4.3

¹ Averages of fiscal years ended Mar. 31, 1920 to 1939; averages of calendar years 1946 to 1950.

PART II.—FOREIGN TRADE STATISTICS*

Section 1.—Explanations *re* Canadian Trade Statistics

Certain problems of procedure arise in recording trade statistics and require explanation. For the correct interpretation of the statistics of foreign trade, it is necessary that the following definitions and explanations of terms used be kept in mind:—

Quantities and Values.—In all tables of imports and exports, the quantities and values are based upon the declarations of importers (import entries) and exporters (export entries), as subsequently checked by customs officials.

* Based on statistics taken from reports published by the External Trade Section, International Trade Division, Dominion Bureau of Statistics.

Imports: Valuation.—"Imports" means imports entered for consumption. "Entered for consumption" does not necessarily imply that the goods have been actually consumed in Canada, but that they have passed into the possession of the importer and that duty has been paid on that portion liable for duty.

Under the main provisions of the law, the value of merchandise imported into Canada is the fair market value or price thereof when sold for home consumption in the principal markets of the country from which said merchandise was exported. (*See Sects. 35 to 45 and 55 of the Customs Act.*)

Canadian Exports: Valuation.—"Canadian produce" exported includes Canadian products or manufactures, also exports of commodities of foreign origin that have been changed in form or enhanced in value by further manufacture in Canada, such as sugar refined in Canada from imported raw sugar, aluminum extracted from imported ore, and articles constructed or manufactured from imported materials. The value of exports of Canadian merchandise is the actual amount received in Canadian dollars exclusive of freight, insurance and other handling charges.

Foreign Exports: Valuation.—"Foreign produce" exported consists of foreign merchandise that has previously been imported (entered for home consumption). The value of such commodities is the actual amount received in Canadian dollars exclusive of freight, insurance, and other handling charges.

Countries to which Trade is Credited.—Imports are classified as received from the countries whence they were consigned to Canada. The countries whence goods are consigned are not necessarily the countries of actual origin, since goods produced in one country may be purchased by a firm in another country and thence dispatched, after longer or shorter interval, to Canada. In such cases the second country would be the country of consignment to which the goods would be credited.

Exports are credited to the country to which they are consigned.

Discrepancies in Trade Statistics between Canada and Other Countries.—Canadian statistics of exports are rarely in exact agreement with the import figures of her customers and similar differences occur with Canadian imports. Many factors contribute to these discrepancies, among which are the following:—

1. Differences in the system of valuation used by Canada and the systems used by other countries.
2. The element of time lag is of considerable importance where Canadian exports are concerned, particularly with bulk goods shipped to other continents. There are always quantities of goods in movement at the beginning or end of any trading period and these affect the comparability between the two countries for the same period of time.
3. Canada's system of geographical classification, according to country of consignment, which may not be the ultimate destination of the goods.

Imports from the United Kingdom.—Published statistics of Canadian imports entered for consumption have always included several items that may be considered of a non-commercial character. These items are never very large in normal times but during the war years their inclusion in the total value of imports, from the United Kingdom in particular, tended to distort published data. The distinction between commercial and non-commercial imports is not always easy to establish, but three items have been segregated, as follows:—

- (a) "Articles for the use of the Imperial Army, Navy and Air Force". These imports consisted almost entirely of war equipment of various kinds for experimental purposes, training and use in Canada by the United Kingdom Government. The values applied to the articles imported under this classification were nominal and no duty was paid.

(b) "Canadian goods returned". Before the War, this item amounted in value to several hundred thousand dollars annually. Late in 1945, however, the Government of Canada began the repatriation of large stocks of war equipment, the bulk of which was shipped from the United Kingdom. On entering Canada, they were classified in the trade returns as "Canadian goods returned" but are not shown in the United Kingdom trade returns.

(c) Settlers' effects, the property of immigrants.

The statement below shows the relation of these non-commercial items to the total:—

I.—COMMERCIAL AND NON-COMMERCIAL IMPORTS FROM THE
UNITED KINGDOM, 1939-51

(Millions of dollars)

Year	Articles for Imperial Forces	Canadian Goods Returned	Settlers' Effects	Total Non- Commercial Imports	Com- mercial Imports	Total Recorded Imports
1939.....	0.8	0.4	0.6	1.8	112.2	114.0
1940.....	23.5	0.3	0.6	24.4	136.8	161.2
1941.....	81.2	0.1	0.1	81.4	138.0	219.4
1942.....	42.5	0.4	0.1	43.0	118.1	161.1
1943.....	34.3	0.1	1	34.4	100.6	135.0
1944.....	16.2	0.3	0.1	16.6	94.0	110.6
1945.....	21.2	18.8	0.2	40.2	100.3	140.5
1946.....	2.3	60.1	1.4	63.8	137.6	201.4
1947.....	1.5	0.8	3.4	5.7	183.7	189.4
1948.....	0.7	0.8	4.9	6.4	293.1	299.5
1949.....	1.6	0.5	3.0	5.1	302.3	307.4
1950.....	0.9	0.4	1.8	3.1	401.1	404.2
1951.....	1.9	0.2	3.3	5.4	415.6	421.0

¹ Less than \$50,000.

Treatment of Gold in Trade Statistics.—The fact that gold is a money metal gives it peculiar attributes that distinguish it from other commodities in trade. In particular, the movement of gold in international trade is determined, almost exclusively, by monetary factors. The amount of exports may fluctuate widely from month to month owing to other than ordinary trade or commercial considerations. In addition, gold is generally acceptable. It does not have to surmount tariff barriers and, normally, is assured a market at a relatively fixed price. It should also be noted that gold does not move in international trade in any direct or normal relation to sales and purchases. Changes in the Bank of Canada's stock of gold under earmark do not enter, therefore, into the trade statistics.

Statistics showing the *net* exports of non-monetary gold, including changes in stocks held under earmark, which supplement the trade figures, are given in the following statement:—

II.—NET EXPORTS OF NON-MONETARY GOLD, 1944-51

(Millions of dollars)

Month	1944	1945	1946	1947	1948	1949	1950	1951
January.....	9.4	8.7	9.3	9.0	9.6	9.7	15.8	17.3
February.....	8.1	8.4	9.5	6.9	8.9	9.6	11.7	11.7
March.....	12.9	10.2	10.0	6.8	8.7	12.1	13.5	8.4
April.....	9.3	6.8	7.2	6.4	9.5	9.8	11.4	16.2
May.....	9.4	10.2	10.0	8.2	8.8	12.4	15.8	13.0
June.....	10.9	4.7	7.7	8.6	9.6	9.8	15.0	13.8
July.....	6.6	8.0	6.6	10.1	10.8	9.4	14.8	13.4
August.....	10.0	8.5	7.5	7.5	9.7	13.8	13.8	11.0
September.....	8.7	6.8	6.8	8.4	11.9	11.2	10.8	10.8
October.....	8.4	7.7	8.5	9.2	9.6	13.2	16.4	8.2
November.....	10.1	9.8	6.0	7.2	9.1	15.4	12.3	7.7
December.....	5.9	6.2	6.7	11.0	12.8	12.5	11.3	18.3
TOTALS.....	109.7	96.0	95.8	99.3	119.0	138.9	162.6	149.8

Section 2.—Total Foreign Trade

In considering the figures in Sections 2 to 6, reference should be made to the explanatory notes on trade in Section 1. It must be emphasized that gold imports and exports are excluded from all tables. Imports from the United Kingdom from 1940 to 1946 are distorted by the inclusion of large amounts of non-commercial items in the trade returns (*see* pp. 930-931). United Kingdom figures can be viewed in proper perspective only if these non-commercial items are excluded from the recorded import statistics.

1.—Value of Total Foreign Trade of Canada (Excluding Gold), 1934-51

NOTE.—These figures are available on a calendar-year basis only since 1919; figures for the fiscal years 1868-1933 are given in the 1940 edition of the Year Book, p. 526.

Year	Imports			Exports			Balance of Trade: Excess of Exports (+) Imports (—)
	Dutiable	Free	Total	Domestic Produce	Foreign Produce	Total	
	\$	\$	\$	\$	\$	\$	\$
1931....	295,566,101	217,903,396	513,469,497	649,314,236	6,991,992	656,306,228	+142,836,731
1935....	306,913,652	213,400,899	550,314,551	721,977,459	12,958,420	737,935,879	+187,621,328
1936....	359,903,936	281,286,908	635,190,844	937,824,933	12,684,319	950,509,252	+315,318,408
1937....	436,327,558	372,568,767	808,896,325	987,366,918	14,754,862	1,012,121,780	+203,225,455
1938....	379,095,355	298,355,999	677,451,354	837,583,917	11,100,216	848,684,133	+171,232,779
1939....	427,470,633	323,581,901	751,055,534	924,926,104	10,995,609	935,921,713	+184,866,179

1.—Value of Total Foreign Trade of Canada (Excluding Gold), 1934-51—concluded

Year	Imports			Exports			Balance of Trade: Excess of Exports (+) Imports (—)
	Dutiable	Free	Total	Domestic Produce	Foreign Produce	Total	
	■	■	■	\$	■	\$	\$
1940....	582,934,898	499,015,821	1,081,950,719	1,178,954,420	14,263,172	1,193,217,592	+111,266,873
1941....	732,781,033	716,000,617	1,448,781,650	1,621,003,175	19,451,366	1,640,454,541	+191,662,891
1942....	715,018,745	929,223,188	1,644,241,933	2,363,773,296	21,692,750	2,385,466,046	+741,224,113
1943....	836,548,673	898,528,217	1,735,076,890	2,971,475,277	29,877,002	3,001,352,279	+1,266,275,389
1944....	884,751,584	874,146,613	1,758,898,197	3,439,953,165	43,145,447	3,483,098,612	+1,724,200,415
1945....	798,795,201	786,979,911	1,585,775,142	3,218,330,353	49,093,935	3,267,424,288	+1,681,649,146
1946....	1,078,943,972	848,335,430	1,927,279,402	2,312,215,301	26,950,546	2,339,165,847	+411,886,445
1947....	1,562,690,081	1,011,254,044	2,573,944,125	2,774,902,355	36,888,055	2,811,790,410	+237,846,285
1948....	1,382,202,722	1,254,742,630	2,636,945,352	3,075,438,085	34,590,583	3,110,028,668	+473,083,316
1949....	1,444,121,667	1,317,083,574	2,761,207,241	2,992,963,978	29,491,856	3,022,455,834	+261,245,593
1950....	1,617,948,425	1,556,304,713	3,174,253,138	3,118,386,551	38,686,122	3,157,072,673	-17,180,465
1951....	2,174,304,400	1,910,552,078	4,084,856,478	3,914,460,376	48,923,939	3,963,384,315	-121,472,163

Section 3.—Trade by Geographic Areas

The tables in this Section provide information about Canada's total foreign trade by continents and by countries with special reference in Tables 4 to 8 to the division between Commonwealth and foreign countries.

2.—Trade of Canada, by Continents, 1939, 1950 and 1951

Continent	1939		1950		1951	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
	\$'000		\$'000		\$'000	
Imports						
Europe—						
United Kingdom.....	114,007	15.2	404,214	12.7	420,984	10.3
Other Europe.....	37,119	4.9	103,292	3.3	177,944	4.4
North America—						
United States.....	496,898	66.1	2,130,476	67.1	2,812,927	68.8
Other North America.....	17,146	2.3	126,576	4.0	115,326	2.8
South America.....	21,047	2.8	174,009	5.5	246,666	6.0
Asia.....	38,065	5.1	144,889	4.5	195,355	4.8
Oceania.....	18,608	2.5	55,938	1.8	84,102	2.1
Africa.....	8,166	1.1	34,859	1.1	31,552	0.8
Totals, Imports.....	751,056	100.0	3,174,253	100.0	4,084,856	100.0
Exports (Domestic)						
Europe—						
United Kingdom.....	328,099	35.5	469,910	15.1	631,461	16.1
Other Europe.....	57,870	6.3	208,758	6.7	369,696	9.4
North America—						
United States.....	380,392	41.1	2,020,987	64.8	2,297,674	58.7
Other North America.....	28,739	3.1	98,698	3.2	123,336	3.2
South America.....	16,165	1.8	90,684	2.9	140,145	3.6
Asia.....	44,779	4.8	115,104	3.7	190,374	4.9
Oceania.....	46,150	5.0	54,450	1.7	78,955	2.0
Africa.....	22,732	2.4	59,796	1.9	82,819	2.1
Totals, Exports.....	924,926	100.0	3,118,387	100.0	3,914,460	100.0

3. -Trade of Canada, by Leading Countries, 1939, 1950 and 1951

NOTE.—Countries arranged in order of importance, in 1951.

Rank			Country	1939	1950	1951
1939	1950	1951				
Imports				\$'000	\$'000	\$'000
1	1	1	United States.....	496,898	2,130,476	2,812,927
2	2	2	United Kingdom.....	114,007	404,213	420,985
27	3	3	Venezuela.....	1,943	87,264	136,718
3	7	4	Federation of Malaya.....	13,145	28,852	57,980
4	6	5	Australia.....	11,269	32,803	46,228
29	8	6	Brazil.....	1,111	28,178	40,627
5	4	7	India.....	10,358	37,262	40,217
8	10	8	Belgium.....	6,772	22,795	39,095
6	22	9	Germany.....	8,947	11,026	30,936
14	21	10	New Zealand.....	4,266	11,855	30,107
7	11	11	British Guiana.....	6,891	21,735	25,025
9	17	12	France.....	6,028	14,669	23,974
1	9	13	Arabia.....		28,115	22,659
13	12	14	Jamaica.....	4,357	19,080	18,041
1	5	15	Mexico.....	479	32,974	18,013
19	18	16	Switzerland.....	3,459	14,464	16,398
18	13	17	Ceylon.....	3,562	17,604	16,396
1	1	18	Syria.....	3	62	16,381
21	15	19	Trinidad and Tobago.....	2,668	15,205	15,082
23	26	20	Italy.....	2,354	9,373	14,217
16	28	21	The Netherlands.....	3,795	8,896	14,010
12	23	22	Argentina.....	4,406	10,913	13,955
15	25	23	Barbados.....	3,874	10,057	13,409
10	19	24	Colombia.....	5,437	13,342	13,063
11	20	25	Japan.....	4,864	12,087	12,577
25	1	26	Sweden.....	2,114	5,145	11,808
22	16	27	British East Africa.....	2,626	15,067	10,864
1	14	28	Netherlands Antilles.....	270	17,336	10,809
1	29	29	Philippines.....	451	6,425	8,954
1	1	30	Costa Rica.....	124	3,378	8,785
Totals, 30 Leading Countries.....				726,478	3,070,651	3,960,240
Grand Totals, Imports.....				751,056	3,174,253	4,084,856
Exports						
1	1	1	United States.....	380,392	2,020,988	2,297,675
2	2	2	United Kingdom.....	328,099	469,910	631,461
11	3	3	Belgium.....	7,261	66,351	94,457
4	9	4	Japan.....	28,168	20,533	72,976
14	14	5	Brazil.....	4,407	15,806	53,684
5	4	6	Union of South Africa.....	17,965	42,561	62,736
3	5	7	Australia.....	32,029	35,446	49,079
22	15	8	Italy.....	2,231	15,476	48,763
12	11	9	France.....	6,973	18,403	46,538
9	23	10	Germany.....	7,869	8,873	37,028
13	6	11	India.....	5,396	31,520	35,737
7	10	12	Norway.....	10,904	18,924	32,198
20	13	13	Mexico.....	3,004	17,624	29,880
26	8	14	Venezuela.....	1,702	25,457	26,982
10	25	15	The Netherlands.....	7,357	8,617	26,191
23	7	16	Switzerland.....	1,850	26,435	25,345
6	20	17	New Zealand.....	11,954	10,983	21,757
19	18	18	Ireland.....	3,597	13,321	20,921
26	12	19	Cuba.....	1,497	18,005	20,424
24	21	20	Philippines.....	1,819	10,829	15,598
1	30	21	Chile.....	957	6,864	13,751
25	16	22	Colombia.....	1,781	14,806	12,311
16	1	23	Sweden.....	4,284	4,250	12,125
27	26	24	Hong Kong.....	1,463	8,004	12,033
1	19	25	Israel.....	230	12,126	11,816
21	1	26	Federation of Malaya.....	2,782	4,097	10,796
15	28	27	Jamaica.....	4,313	7,495	10,213
17	29	28	Trinidad and Tobago.....	4,211	7,476	9,950
18	17	29	Argentina.....	4,117	13,360	8,883
1	27	30	Puerto Rico.....	548	7,643	8,120
Totals, 30 Leading Countries.....				889,160	2,982,183	3,749,428
Grand Totals, Exports.....				924,926	3,118,387	3,914,460

1 Not ranked among the 30 leading countries.

4.—Values and Percentages of Trade with Overseas Countries via the United States, 1950 and 1951

Country	Imports via the United States				Domestic Exports via the United States			
	1950		1951		1950		1951	
	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.
United Kingdom and Other Commonwealth Countries								
United Kingdom.....	257	--	76	--	10,445	2-2	26,177	4-1
Australia.....	2	--	—	—	12,579	35-4	20,203	41-1
Bermuda.....	—	—	3	4-0	102	3-4	134	3-6
British East Africa.....	34	--	110	1-0	492	57-9	1,070	74-0
British South Africa.....	27	0-5	10	0-2	9,352	22-0	18,394	34-8
British West Africa.....	30	0-2	1,782	22-1	895	84-5	1,807	90-2
British Guiana.....	—	—	98	0-4	42	1-0	31	0-5
British Honduras.....	35	7-9	6	1-3	57	11-6	135	23-6
British West Indies.....	616	1-4	404	0-8	880	3-8	1,170	3-8
India.....	231	0-6	1,314	3-3	778	2-5	888	2-5
Ceylon.....	65	0-4	244	1-5	262	0-6	676	19-5
Pakistan.....	24	1-4	16	0-7	633	7-3	729	16-3
Hong Kong.....	74	3-4	93	3-1	1,953	24-4	1,835	15-2
New Zealand.....	128	1-1	79	0-3	1,711	15-6	4,889	22-5
Totals, United Kingdom and Other Commonwealth Countries¹	1,522	0-1²	4,264	0-4²	42,742	3-9²	85,023	5-3²
Foreign Countries								
Arabia.....	6,918	25-0	9,131	40-3	372	42-5	1,194	84-4
Argentina.....	235	2-2	629	4-5	1,318	9-9	4,613	51-9
Belgium.....	167	0-7	220	0-6	7,373	11-1	6,579	7-0
Brazil.....	816	2-9	2,602	6-4	5,468	34-6	23,417	43-6
Chile.....	66	4-9	379	17-6	1,290	18-7	5,158	37-5
China.....	285	5-4	88	4-6	806	39-2	151	41-1
Colombia.....	1,164	8-7	1,368	10-5	5,254	35-5	5,110	41-5
Costa Rica.....	13	0-4	247	2-8	837	36-2	601	27-6
Cuba.....	122	3-0	191	2-3	4,531	25-2	5,148	25-2
Egypt.....	—	—	8	1-1	319	8-5	686	27-8
France.....	39	0-3	193	0-8	3,542	19-2	9,256	19-9
Germany.....	39	0-4	310	1-0	3,576	40-3	5,742	15-5
Guatemala.....	255	4-4	132	2-8	626	26-1	869	36-7
Haiti.....	61	3-4	202	6-7	1,074	42-7	969	37-4
Honduras.....	33	0-6	104	2-6	499	81-4	500	14-0
Iraq.....	40	3-3	5	0-2	63	90-0	973	91-6
Ireland.....	—	—	61	7-8	755	5-7	1,139	5-4
Israel.....	7	--	77	8-3	1,273	10-5	2,140	18-1
Italy.....	299	3-2	428	3-0	2,201	14-2	2,884	5-9
Japan.....	773	6-4	945	7-5	1,588	7-7	9,529	13-1
Mexico.....	1,710	5-2	1,848	10-2	9,299	52-8	17,515	58-6
The Netherlands.....	1	--	61	0-4	684	7-9	5,281	20-2
Panama.....	2	--	9	0-3	1,292	14-3	1,254	21-0
Peru.....	5	--	131	2-3	1,727	46-1	3,166	62-6
Philippine Islands.....	119	1-8	—	—	852	7-9	1,227	7-9
Portugal.....	48	2-8	121	6-0	926	16-4	1,161	24-8
Portuguese Africa.....	16	14-7	—	—	493	18-2	786	27-8
Puerto Rico.....	6	0-6	2	0-2	489	6-4	694	8-5
Spain.....	158	4-4	1,668	23-4	150	2-7	398	53-6
Sweden.....	27	5-2	99	0-8	1,540	36-2	1,244	10-2
Switzerland.....	310	2-1	160	1-0	4,084	15-4	4,305	17-0
Syria.....	62	100-0	5,054	30-8	644	44-0	2,901	41-2
Turkey.....	259	20-2	678	38-6	3,125	83-4	1,963	66-2
Uruguay.....	2	--	48	1-3	476	24-8	2,416	35-1
Venezuela.....	35,136	40-2	52,216	38-2	11,794	46-3	11,620	43-0
Totals, Foreign Countries¹	50,539	4-8²	82,961	6-5²	100,894	9-1²	172,568	10-6²
Grand Totals	52,061	4-9²	87,225	6-9²	143,636	13-0²	257,591	15-9²

¹ Includes other countries not specified.
less United States imports or exports.

² Percentage calculated on grand totals of Tables 5 or 6,

5.—Total Value of Imports, by Countries, 1945-51, with Averages, 1935-39

Country	Averages 1935-39	1945	1946	1947	1948	1949	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
United Kingdom and Other Commonwealth Countries								
United Kingdom.....	124,047	140,517	201,433	189,370	299,502	307,450	404,213	420,985
Ireland ¹	69	9	53	76	85	71	2	2
Aden.....	4	2	—	—	5,531	884	12	22
British East Africa.....	2,683	1,539	3,603	7,683	9,543	6,094	15,067	10,864
Southern Rhodesia.....	316	542	93	181	484	798	401	1,496
Northern Rhodesia.....				29	19	59	51	9
Union of South Africa.....	4,210	8,433	7,892	4,228	3,816	3,862	4,964	5,372
Other British South Africa				3	3	3	—	—
Gold Coast.....	701	6,367	5,381	6,493	9,751	6,709	8,999	7,112
Nigeria.....	370	3,422	4,772	2,149	4,939	2,593	1,486	898
Sierra Leone.....	7	9	—	18	5	10	294	49
Anglo-Egyptian Sudan.....	25	67	53	26	36	25	53	58
India.....	8,531	30,568	27,877	42,250	33,400	26,233	37,262	40,217
Pakistan.....				1,306	1,193	1,706	2,233	
Burma.....	165	—	1	3	2	2	2	2
Ceylon.....	4,015	5,682	3,745	11,653	11,182	11,635	17,604	16,396
British Malaya.....	11,154	—	5,871	16,908	21,878	16,187	28,852	57,980
Other British East Indies..	79	—	—	30	52	21	47	4,623
Bermuda.....	102	94	122	57	139	144	87	82
British Guiana.....	5,846	9,338	12,187	12,358	15,380	22,355	21,735	25,025
British Honduras.....	87	450	1,221	584	834	295	445	458
Barbados.....	3,261	5,466	5,548	7,776	6,387	7,080	10,057	13,409
Jamaica.....	5,160	9,273	10,484	6,371	9,557	16,577	19,080	18,041
Trinidad and Tobago.....	2,387	3,101	4,137	5,654	9,027	14,575	15,205	15,082
Bahamas.....				615	648	818	532	346
Leeward and Windward Islands.....	1,816	857	788	199	308	297	395	956
Falkland Islands.....	4	—	—	—	—	—	—	—
Hong Kong.....	842	—	163	982	1,866	2,989	2,203	3,001
Malta.....	2	21	56	12	5	22	20	47
Newfoundland.....	2,188	16,600	9,268	9,427	11,091	913 ²	—	—
Australia.....	9,728	17,180	19,754	14,222	27,415	27,429	32,803	46,228
Fiji.....	2,341	1,607	3,123	4,178	8,275	7,997	10,194	5,993
New Zealand.....	4,754	9,276	11,956	10,831	11,603	8,910	11,855	30,107
Other British Oceania.....	3	409	420	—	—	—	—	—
Israel.....	68	415	500	31	49	2	2	2
Totals, United Kingdom and Other Commonwealth Countries.....	194,961	271,668	340,501	354,394	504,114	494,229	645,624	727,089
Foreign Countries								
Afghanistan.....	1	2,079	1,587	—	—	3	109	51
Arabia.....						12,127	28,115	22,659
Argentina.....	5,374	7,333	14,372	17,961	5,746	3,324	10,913	13,955
Austria.....	245	—	—	89	281	382	964	3,191
Belgium.....	6,328	380	4,429	10,120	13,661	19,022	22,795	39,695
Belgian Congo.....	5	333	664	815	1,644	703	1,481	3,052
Bolivia.....	26	25	32	8	—	2,049	2,442	1,848
Brazil.....	920	7,601	14,018	13,888	20,559	21,163	28,178	40,627
Burma.....	—	—	—	—	6	32	—	4
Chile.....	125	562	424	339	332	598	1,353	2,153
China.....	3,344	2,321	2,304	3,912	3,912	3,347	5,299	1,929
Colombia.....	5,139	11,678	9,708	9,197	8,668	12,588	13,342	13,063
Costa Rica.....	77	594	1,546	727	3,107	2,119	3,378	8,785
Cuba.....	615	7,512	13,228	23,751	22,606	6,562	4,134	8,333
Czechoslovakia.....	1,979	—	964	3,645	4,809	6,401	6,036	4,668
Denmark.....	165	271	157	1,455	9,585	1,893	1,406	3,730
Greenland.....	311	6	271	—	—	—	—	—
Dominican Republic.....	4	6,201	7,127	8,186	17,270	3,822	1,180	1,126
Ecuador.....	41	1,964	157	207	889	1,137	1,473	2,438
Egypt.....	728	213	252	205	1,490	155	659	711
El Salvador.....	19	1,502	2,428	1,342	1,166	1,054	848	1,183
Estonia.....	23	—	—	—	4	11	30	116

¹ Ireland became a Republic in 1949.² Included under "Foreign Countries".³ Less than

\$500.

⁴ Ex-bond.⁵ January to March 1949 only.

5.—Total Value of Imports, by Countries, 1945-51, with Averages, 1935-39—concluded

Country	Averages 1935-39	1945	1946	1947	1948	1949	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Foreign Countries—concl.								
Ethiopia.....	5	2	1	9	38	49	31	31
Finland.....	70	—	23	30	39	45	217	158
France.....	6,382	273	4,610	8,755	12,648	13,309	14,669	23,974
French Africa.....	61	308	353	252	112	17	543	398
French East Indies.....	126	—	—	1	9	—	—	1
French Oceania.....	3	44	22	18	—	416	476	360
French West Indies.....	1	94	3	19	57	123	1	1
Madagascar.....	31	119	123	18	28	9	8	29
St. Pierre and Miquelon.....	26	11	7	15	11	12	17	25
Germany.....	10,364	2	11	498	1,729	7,134	11,026	30,936
Greece.....	47	2	64	95	144	135	203	174
Guatemala.....	67	1,779	2,928	9,488	8,209	5,743	5,781	4,618
Haiti.....	63	514	778	227	176	1,026	1,769	3,020
Honduras.....	49	8,017	15,573	6,999	6,182	6,986	5,620	4,027
Hungary.....	130	—	—	50	103	76	36	121
Iceland.....	3	31	9	30	76	52	233	26
Iran.....	126	406	274	299	959	288	192	521
Iraq.....	357	974	1,489	1,502	799	1,418	1,201	2,132
Ireland.....	2	2	2	2	2	2	148	785
Israel.....	2	2	2	2	2	504	490	929
Italy.....	2,403	1	2,704	3,872	6,981	9,048	9,373	14,217
Italian Africa.....	1	1	4	3	—	—	2	3
Japan.....	4,649	—	3	350	3,144	5,551	12,087	12,577
Korea.....	1	—	—	—	—	1	35	1
Latvia.....	11	—	—	—	1	4	3	33
Liberia.....	14	12	60	25	7	7	—	183
Lithuania.....	4	—	—	—	2	2	—	12
Mexico.....	667	13,508	14,610	16,980	27,258	25,494	32,974	18,013
Morocco.....	32	111	18	36	346	142	704	1,071
The Netherlands.....	3,984	401	2,497	3,530	5,831	6,688	8,896	14,010
Indonesia.....	800	18	57	200	2,261	1,454	728	1,052
Netherlands Antilles.....	150	830	3,186	8,648	7,286	3,713	17,336	10,809
Surinam.....	1	—	59	519	873	326	228	1,141
Nicaragua.....	1	1	29	87	172	179	339	596
Norway.....	742	641	836	4,999	1,103	1,212	1,405	2,977
Panama.....	32	34	38	2,107	1,226	2,572	5,478	3,492
Paraguay.....	62	241	264	232	230	374	350	343
Peru.....	3,554	149	847	407	1,989	2,465	3,961	5,588
Philippine Islands.....	563	1	2,053	8,063	6,442	4,203	6,425	8,954
Poland.....	185	—	1	3	22	183	357	1,430
Portugal.....	265	1,658	2,188	1,409	1,177	1,351	1,698	1,980
Azores and Madeira.....	157	63	241	655	364	554	387	410
Portuguese Africa.....	15	306	510	392	77	212	109	198
Roumania.....	96	—	1	1	19	3	19	22
Siam.....	84	—	12	28	79	72	1,181	1,938
Spain.....	989	4,353	4,484	3,002	2,586	2,427	3,558	7,114
Canary Islands.....	10	—	—	2	7	11	6	16
Sweden.....	2,044	1,093	3,681	3,184	2,763	3,474	5,145	11,808
Switzerland.....	3,110	7,863	11,149	11,941	7,444	10,902	14,464	16,398
Syria.....	6	19	71	30	28	429	62	16,381
Turkey.....	293	277	1,880	2,672	1,064	1,207	1,280	1,757
Union of Soviet Socialist Republics.....	341	1,747	1,519	181	4	11	80	358
United States.....	418,738	1,202,418	1,405,297	1,974,679	1,805,763	1,951,860	2,130,476	2,812,927
Alaska.....	93	113	389	744	1,323	1,218	976	1,483
American Virgin Islands.....	1	—	32	16	46	14	12	166
United States Oceania.....	1	—	50	—	—	85	115	—
Hawaii.....	186	6	346	709	796	361	495	1,414
Puerto Rico.....	13	51	198	270	1,583	523	931	1,276
Uruguay.....	180	95	618	321	714	1,069	2,770	3,768
Venezuela.....	1,662	17,267	26,886	46,688	94,758	91,697	87,264	136,718
Yugoslavia.....	99	—	2	23	5	45	122	149
Totals, Foreign Countries³	489,621	1,314,107	1,586,778	2,219,559	2,132,831	2,266,978	2,528,629	3,357,767
Grand Totals.....	684,582	1,585,775	1,927,279	2,573,944	2,636,945	2,761,207	3,174,253	4,084,856

¹ Less than \$500.² See "United Kingdom and Other Commonwealth Countries".³ Includes other countries not specified.

6.—Value of Domestic Exports, by Countries, 1945-51, with Averages, 1935-39

Country	Averages 1935-39	1945	1946	1947	1948	1949	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
United Kingdom and Other Commonwealth Countries								
United Kingdom.....	353,741	963,238	597,506	751,198	686,914	704,956	469,910	631,461
Ireland ¹	3,861	14,278	7,956	17,598	9,257	9,052	2	2
Aden.....	109	156	256	1,602	2,653	57	31	25
British East Africa.....	789	3,787	2,220	4,682	3,473	1,730	849	1,444
Southern Rhodesia.....	970	2,008	3,284	7,369	2,711	2,665	1,202	2,669
Northern Rhodesia.....				450	606	553	395	281
Union of South Africa.....	15,457	31,593	68,633	66,674	83,248	77,713	42,561	52,736
Other British South Africa.....				15	6	15	5	27
Gambia.....	35	33	63	66	26	8	12	26
Gold Coast.....	270	890	871	1,652	2,072	1,489	581	980
Nigeria.....	145	318	1,021	2,285	876	1,068	247	796
Sierra Leone.....	203	376	410	811	717	303	219	200
Other British West Africa.....	2	2	2	2	6	2	2	2
Anglo-Egyptian Sudan.....	109	94	510	1,028	42	37	75	34
India.....	3,732	307,461	49,046	42,947	33,698	72,551	31,520	35,737
Pakistan.....					7,775	18,097	8,681	4,486
Burma.....	71	478	442	823	2	2	2	2
Ceylon.....	246	8,290	2,140	4,079	1,710	2,159	4,353	3,470
British Malaya.....	2,173	1,114	3,224	7,464	9,288	5,437	4,097	10,796
Other British East Indies.....	5	2	51	9	16	2	32	2
Bermuda.....	1,381	2,511	3,805	5,108	4,102	3,616	2,991	3,693
British Guiana.....	1,344	6,418	7,109	10,273	8,229	5,676	4,052	5,308
British Honduras.....	255	884	1,110	1,375	1,151	600	491	572
Barbados.....	1,218	4,750	6,205	9,063	5,654	5,013	2,974	4,584
Jamaica.....	3,887	14,404	15,500	18,214	12,350	9,033	7,495	10,213
Trinidad and Tobago.....	3,372	16,433	19,140	26,354	17,105	12,325	7,476	9,950
Bahamas.....				3,688	3,636	2,268	1,937	2,136
Leeward and Windward Islands.....	1,600	6,865	8,341	7,592	6,177	4,515	3,213	4,229
Falkland Islands.....	2	8	2	39	2	7	1	2
Gibraltar.....	9	586	333	252	15	336	329	648
Hong Kong.....	1,651	99	4,362	6,397	8,256	10,099	8,004	12,033
Malta.....	377	4,740	4,671	6,705	3,250	3,905	4,680	2,150
Newfoundland.....	8,048	40,515	38,229	55,085	55,055	9,229*	...	...
Australia.....	28,924	32,226	38,191	60,294	38,257	35,363	35,446	49,079
Fiji.....	387	261	375	1,386	492	598	234	802
New Zealand.....	12,799	19,102	16,110	37,386	18,375	14,489	10,983	21,577
Other British Oceania.....	25	64	20	63	156	61	15	82
Israel.....	251	2,866	3,562	8,473	5,036	2	2	2
Totals, United Kingdom and Other Commonwealth Countries.....	447,414	1,486,848	904,701	1,168,501	1,032,391	1,015,022	655,089	872,407
Foreign Countries								
Afghanistan.....	2	6	1	36	43	14	52	97
Albania.....	3	497	122	505	90	—	2	1
Arabia.....	...	...	...	...	...	3,142	875	1,414
Argentina.....	4,696	6,003	14,039	31,697	16,680	2,902	13,360	8,883
Austria.....	27	3	3,679	3,070	3,110	3,706	2,369	2,166
Belgium.....	13,201	31,618	63,626	52,749	33,035	58,525	66,351	94,457
Belgian Congo.....	89	945	1,201	1,292	2,241	2,459	2,471	4,318
Bolivia.....	113	319	529	567	1,046	1,908	2,267	3,484
Brazil.....	4,012	16,748	24,602	31,660	28,601	17,259	15,806	53,684
Bulgaria.....	10	—	9	14	123	279	215	8
Burma.....	...	...	...	...	173	54	30	279
Chile.....	848	2,562	3,565	4,392	4,495	3,633	6,884	13,751
China.....	3,808	6,573	42,915	34,984	29,128	13,801	2,057	367
Colombia.....	1,296	5,011	8,930	9,950	8,406	8,012	14,806	12,311
Costa Rica.....	103	521	873	1,780	1,216	1,859	2,312	2,175
Cuba.....	1,118	4,535	5,270	7,502	10,987	14,391	18,005	20,424
Czechoslovakia.....	881	6,717	9,871	13,779	11,395	3,030	2,179	492
Denmark.....	1,438	109	1,527	4,328	7,748	3,109	923	5,587
Greenland.....	—	888	234	128	88	27	134	206
Dominican Republic.....	171	732	1,541	1,914	2,386	2,194	2,954	4,060
Ecuador.....	93	360	801	1,626	1,308	1,727	1,432	2,713
Egypt.....	399	36,417	15,086	10,922	10,205	4,762	3,716	2,466
El Salvador.....	69	386	454	665	1,103	927	1,467	2,002

¹ Ireland became a Republic in 1949.
\$500.² Included under "Foreign Countries".³ Less than⁴ January to March 1949 only.

6.—Value of Domestic Exports, by Countries, 1945-51, with Averages, 1935-39—concl.

Country	Aver- ages 1935-39	1945	1946	1947	1948	1949	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Foreign Countries—concl.								
Ethiopia.....	1	7	30	94	74	42	54	198
Finland.....	539	1	507	1,212	2,280	607	600	3,129
France.....	8,566	76,917	74,380	81,058	92,963	36,004	18,403	46,538
French Africa.....	248	16,908	8,945	4,598	2,747	2,243	1,927	6,748
French East Indies.....	85	1	269	858	498	177	69	223
French Guiana.....	36	50	180	264	129	129	5	4
French Oceania.....	80	143	121	230	153	295	737	626
French West Indies.....	157	351	1,278	1,743	538	70	39	40
Madagascar.....	13	54	263	177	408	227	117	102
St. Pierre and Miquelon..	309	737	784	1,158	1,432	1,208	1,061	1,186
Germany.....	9,639	2,724	6,867	6,690	13,214	23,451	8,873	37,028
Greece.....	1,142	25,563	9,739	5,440	9,663	2,615	1,833	2,703
Guatemala.....	117	424	928	1,630	1,548	1,697	2,401	2,365
Haiti.....	131	612	1,121	1,366	1,393	1,602	2,513	2,588
Honduras.....	159	188	624	641	677	678	613	3,575
Hungary.....	1	1	1,063	946	820	75	86	30
Iceland.....	28	3,681	3,123	2,485	1,845	743	847	700
Iran.....	118	1,816	431	946	684	11,987	993	1,000
Iraq.....	55	3,494	3,231	2,160	831	472	70	1,062
Ireland.....	2	2	2	2	2	12,709	13,321	20,921
Israel.....	2	2	2	2	2	12,567	12,125	11,816
Italy.....	2,785	89,470	20,387	35,688	32,379	12,567	15,476	48,763
Tripoli.....	1	19	—	5	5	10	374	2,029
Other Italian Africa.....	2	6	3	7	1	92	184	3
Japan.....	21,880	—	1,027	559	8,001	5,860	20,533	72,976
Korea.....	3	—	126	30	23	233	1,143	213
Jordan.....	17	84	67	143	129	211	46	1,071
Liberia.....	17	84	67	143	129	119	109	1,373
Mexico.....	2,630	8,165	10,536	11,700	15,045	15,411	17,624	29,880
Morocco.....	711	9,192	1,169	1,447	1,700	1,288	1,700	3,381
The Netherlands.....	10,062	39,970	33,883	55,940	43,684	13,759	8,617	26,191
Indonesia.....	801	856	6,833	5,807	7,959	4,640	3,052	5,227
Netherlands Antilles.....	176	799	1,399	1,844	2,175	2,003	4,464	1,834
Surinam.....	49	174	476	826	695	960	803	934
Nicaragua.....	72	317	366	590	701	638	756	1,097
Norway.....	7,247	7,842	19,267	20,320	23,429	21,736	18,924	32,198
Panama.....	316	1,006	1,502	1,882	4,123	13,632	9,019	5,961
Paraguay.....	8	44	85	153	369	133	110	167
Peru.....	1,072	3,957	3,080	3,695	2,529	7,050	3,744	5,054
Philippine Islands.....	1,523	2,153	8,901	10,148	9,810	13,983	10,829	15,598
Poland.....	805	9,249	22,501	15,380	5,804	1,945	1,432	94
Portugal.....	170	2,356	2,662	3,502	5,181	8,405	5,641	4,665
Azores and Madeira.....	8	21	71	392	77	101	210	259
Portuguese Africa.....	1,675	812	2,128	1,898	3,258	3,604	2,702	2,827
Portuguese Asia.....	1	4	76	147	104	162	103	107
Romania.....	52	—	1	102	440	338	122	11
Siam.....	22	—	58	415	609	752	1,200	2,378
Spain.....	495	992	695	941	596	387	5,642	742
Canary Islands.....	17	49	333	46	12	49	237	107
Spanish Africa.....	9	—	—	62	54	95	62	75
Sweden.....	3,593	4,169	9,133	17,461	7,207	5,516	4,250	12,125
Switzerland.....	948	10,922	8,636	14,196	19,389	32,281	26,435	25,345
Syria.....	80	630	228	2,546	6,094	3,278	1,462	7,036
Turkey.....	388	710	1,618	2,229	2,012	14,121	3,744	2,962
Union of Soviet Socialist Republics.....	336	58,820	17,705	4,866	112	93	182	7
United States.....	321,294	1,196,977	887,941	1,034,226	1,500,987	1,503,459	2,020,988	2,297,675
Alaska.....	154	223	276	300	865	1,008	959	2,264
American Virgin Islands..	42	18	110	160	116	126	156	181
United States Oceania.....	2	5	5	199	318	182	205	191
Hawaii.....	1,207	3,934	2,758	3,299	5,867	8,311	6,830	6,418
Puerto Rico.....	425	2,301	2,926	2,605	2,300	5,962	7,643	8,120
Uruguay.....	310	1,857	2,671	3,371	4,201	2,282	1,918	6,868
Venezuela.....	1,139	4,053	11,086	12,989	16,935	27,689	25,457	26,982
Yugoslavia.....	18	11,710	12,030	6,729	2,250	734	818	2,739
Totals, Foreign Countries¹	437,092	1,731,482	1,407,514	1,606,401	2,043,047	1,977,939	2,463,297	3,042,053
Grand Totals.....	884,536	3,218,330	2,312,215	2,774,902	3,075,438	2,992,961	3,118,386	3,914,460

¹ Less than \$500.
cludes other countries not specified.² See "United Kingdom and Other Commonwealth Countries".³ In-

7.—Value of Trade with the Commonwealth and Foreign Countries, Significant Years, 1886-1951

Item and Year	Canadian Trade with—							
	United Kingdom		United States		Other Commonwealth Countries		Other Foreign Countries	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
Imports	\$'000		\$'000		\$'000		\$'000	
Ended Mar. 31—								
1886.....	39,033	40.7	42,819	44.6	2,384	2.5	11,757	12.2
1891.....	42,019	37.7	52,033	46.7	2,318	2.1	15,163	13.5
1896.....	32,825	31.2	53,529	50.8	2,389	2.2	16,619	15.8
1901.....	42,820	24.1	107,378	60.3	3,833	2.2	23,900	13.4
1906.....	69,184	24.4	169,256	59.6	14,606	5.1	30,694	10.9
1911.....	109,935	24.3	275,824	60.8	19,533	4.4	47,433	10.5
1916.....	77,404	15.2	370,881	73.0	27,826	5.5	32,091	6.3
1921.....	213,974	17.3	856,177	69.0	52,029	4.2	117,979	9.5
Ended Dec. 31—								
1926.....	164,707	16.3	668,747	66.3	49,907	5.0	124,980	12.4
1929.....	194,778	15.0	893,585	68.8	62,287	4.8	148,343	11.4
1937.....	147,292	18.2	490,505	60.7	89,304	11.0	81,796	10.1
1939.....	114,007	15.2	496,898	66.1	74,893	10.0	65,257	8.7
1943.....	134,965	7.7	1,423,672	82.1	103,666	6.0	72,773	4.2
1946.....	201,433	10.4	1,405,297	72.0	139,067	7.2	181,482	9.4
1947.....	189,370	7.4	1,974,679	76.7	165,024	6.4	244,871	9.5
1948.....	299,502	11.4	1,805,763	68.5	204,612	7.7	327,069	12.4
1949.....	307,450	11.1	1,951,860	70.7	186,779	6.8	315,118	11.4
1950.....	404,213	12.7	2,130,476	67.1	241,411	7.6	398,153	12.5
1951.....	420,985	10.3	2,812,927	68.9	306,104	7.5	544,840	13.3
Exports (Domestic)								
Ended Mar. 31—								
1886.....	36,694	47.2	34,284	44.1	3,263	4.2	3,515	4.5
1891.....	43,244	48.8	37,743	42.6	3,893	4.4	3,791	4.2
1896.....	62,718	57.2	37,789	34.4	4,043	3.7	5,152	4.7
1901.....	92,858	52.3	67,984	38.3	7,891	4.5	8,700	4.9
1906.....	127,456	54.2	83,546	35.5	10,965	4.6	13,516	5.7
1911.....	132,157	48.2	104,116	38.0	16,811	6.1	21,233	7.7
1916.....	451,852	60.9	201,106	27.1	30,677	4.2	57,974	7.8
1921.....	312,845	26.3	542,323	45.6	90,607	7.6	243,389	20.5
Ended Dec. 31—								
1926.....	459,223	36.4	457,878	36.3	95,701	7.6	248,439	19.7
1929.....	290,295	25.2	492,686	42.8	105,006	9.1	264,430	22.0
1937.....	402,062	40.3	360,012	36.1	104,159	10.4	131,134	13.2
1939.....	328,099	35.5	380,392	41.1	102,707	11.1	113,728	12.3
1943.....	1,032,647	34.8	1,149,232	33.7	369,015	12.4	420,581	14.2
1946.....	597,506	25.8	887,941	38.4	307,195	13.3	519,574	22.4
1947.....	751,198	27.1	1,034,226	37.3	417,303	15.0	572,175	20.6
1948.....	686,914	22.3	1,500,987	48.8	345,477	11.3	542,060	17.6
1949.....	704,956	23.6	1,503,459	50.2	310,067	10.4	474,480	15.9
1950.....	469,910	15.1	2,020,988	64.8	185,179	5.9	442,310	14.2
1951.....	631,461	16.1	2,297,675	58.7	240,946	6.2	744,379	19.0

VALUE OF DUTIABLE AND FREE IMPORTS

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8.—Values of Dutiable and Free Imports from Principal Commonwealth and Foreign Countries, 1939, 1950 and 1951

Country	1939			1950			1951		
	Duti- able	Free	Total	Duti- able	Free	Total	Duti- able	Free	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
United Kingdom and Other Commonwealth Countries									
United Kingdom.....	52,589	61,419	114,008	151,142	253,071	404,213	173,624	247,361	420,985
British East Africa.....	757	1,869	2,626	9,590	5,476	15,067	2,789	8,075	10,864
Southern Rhodesia.....	1	—	1	35	366	401	25	1,471	1,496
Northern Rhodesia.....	—	—	—	—	—	—	—	—	—
Union of South Africa.....	784	3,206	3,990	770	4,245	5,014	708	4,673	5,381
Other British South Africa	—	—	—	—	—	—	—	—	—
Gold Coast.....	251	—	251	5,519	3,480	8,999	3,302	3,810	7,112
Nigeria.....	2	52	54	1,445	41	1,486	776	122	898
India (includes Pakistan).....	5,185	4,623	9,808	2,599	36,369	38,968	6,286	36,163	42,449
Ceylon.....	2,169	1,394	3,563	567	17,037	17,604	467	15,929	16,396
British Malaya.....	783	12,362	13,145	389	28,463	28,852	305	57,675	57,980
Bermuda.....	8	58	66	17	70	87	12	70	82
British Guiana.....	4,540	2,352	6,892	14,455	7,279	21,735	15,534	9,491	25,025
Barbados.....	2,376	1,498	3,874	7,513	2,544	10,057	10,562	2,846	13,409
Jamaica.....	2,323	2,034	4,357	17,473	1,608	19,080	16,705	1,336	18,041
Trinidad and Tobago.....	2,143	525	2,668	8,060	7,144	15,205	8,371	6,712	15,082
Bahamas.....	—	—	—	—	—	—	—	—	—
Leeward and Windward Is.	770	810	1,580	46	486	532	40	306	345
Hong Kong.....	615	167	782	3	392	395	677	279	956
Australia.....	4,718	6,551	11,269	12,457	20,346	32,803	16,559	29,669	46,225
Fiji.....	2,776	2	2,778	10,194	1	10,194	5,986	7	5,993
New Zealand.....	143	4,123	4,266	1,601	10,254	11,855	5,543	24,564	30,107
Totals, United Kingdom and Other Commonwealth Countries	81,313	105,588	188,901	245,842	399,782	645,624	270,576	456,513	727,089
Foreign Countries									
Arabia.....	—	—	—	—	28,115	28,115	—	22,659	22,659
Argentina.....	1,939	2,467	4,406	7,177	3,736	10,913	10,539	3,416	13,955
Belgium.....	4,156	2,623	6,778	14,758	8,037	22,795	29,522	9,573	39,095
Brazil.....	817	294	1,111	22,078	6,100	28,178	27,617	13,009	40,627
China.....	2,526	250	2,776	2,330	2,969	5,299	1,139	790	1,929
Colombia.....	648	4,789	5,437	13,302	41	13,342	13,032	30	13,063
Cuba.....	812	77	889	3,037	1,097	4,134	6,848	1,485	8,333
Czechoslovakia.....	155	36	191	5,698	397	6,036	4,465	203	4,668
Denmark.....	123	74	197	901	505	1,406	2,722	1,008	3,730
Dominican Republic.....	16	—	16	1,174	6	1,180	1,107	19	1,126
Ecuador.....	13	5	18	1,424	49	1,473	2,086	352	2,438
El Salvador.....	44	1	45	831	17	848	1,141	42	1,183
France.....	4,671	1,356	6,027	10,543	4,126	14,669	18,968	5,005	23,974
Germany.....	6,969	1,978	8,947	6,833	4,192	11,026	25,394	5,542	30,936
Guatemala.....	164	—	164	5,068	713	5,781	3,945	673	4,618
Honduras.....	17	—	17	5,565	56	5,621	4,013	14	4,027
Iraq.....	475	4	479	1,201	—	1,201	1,496	636	2,132
Italy.....	1,937	417	2,354	7,619	1,754	9,373	11,471	2,746	14,217
Japan.....	4,038	826	4,864	11,512	575	12,087	11,490	1,087	12,577
Mexico.....	471	8	479	5,549	27,425	32,974	7,841	10,171	18,013
The Netherlands.....	2,248	1,547	3,795	5,055	3,841	8,896	7,508	6,503	14,010
Netherlands Antilles.....	—	270	270	17,090	247	17,336	10,657	152	10,809
Norway.....	585	95	680	1,121	284	1,405	2,074	903	2,977
Panama.....	72	1	73	5,478	—	5,478	3,487	5	3,492
Peru.....	10	591	601	121	3,840	3,961	278	5,310	5,588
Philippine Islands.....	265	186	451	760	5,666	6,425	244	8,709	8,954
Portugal.....	169	106	275	933	765	1,698	1,063	917	1,980
Spain.....	518	144	662	2,785	773	3,558	5,464	1,651	7,114
Sweden.....	1,755	534	2,289	3,993	1,152	5,145	9,827	1,981	11,808
Switzerland.....	2,772	687	3,459	12,708	1,756	14,464	13,712	2,687	16,398
Turkey.....	229	176	405	747	533	1,280	1,021	737	1,757
United States.....	332,559	194,310	496,899	1,177,677	952,799	2,130,476	1,624,802	1,188,125	2,812,927
Venezuela.....	54	1,889	1,943	6,800	80,404	87,264	11,001	125,716	136,718
Totals, Foreign Countries	344,158	217,997	562,155	1,375,692	1,152,937	2,528,629	1,903,728	1,454,040	3,357,768
Grand Totals	427,471	323,584	751,055	1,621,534	1,552,719	3,174,253	2,174,304	1,910,552	4,084,856

¹ Includes other countries not specified.

9.—Average Ad Valorem Rates of Duty Collected and Percentage Proportions of Imports from the United Kingdom and from the United States to Totals of Dutiable and Free Imports, 1939-51.

NOTE.—Figures for the fiscal years 1868-1938 are given at p. 532 of the 1940 edition of the Year Book.

Year	United Kingdom					United States				
	Average Ad Valorem Rates of Duty on—		Dutiable to Total Dutiable	Free to Total Free	Per-centage of All Imports	Average Ad Valorem Rates of Duty on—		Dutiable to Total Dutiable	Free to Total Free	Per-centage of All Imports
	Dutiable Imports	Total Imports				Dutiable Imports	Total Imports			
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	
1939...	27.0	12.4	12.3	19.0	15.2	21.3	13.0	70.7	60.1	66.2
1940...	24.8	8.4	9.3	21.4	14.9	20.3	12.4	78.0	58.0	68.8
1941...	23.4	4.7	6.0	24.5	15.1	18.8	11.6	84.7	53.6	69.3
1942...	24.2	5.8	5.4	13.2	9.8	19.0	9.2	88.2	72.5	79.3
1943...	18.7	5.2	4.5	10.8	7.8	18.9	10.0	90.2	74.0	82.1
1944...	16.3	6.1	4.7	7.9	6.3	18.7	10.2	89.0	75.5	82.3
1945...	17.6	4.7	4.7	13.1	8.9	19.3	11.1	86.6	64.8	75.8
1946...	17.5	4.5	4.8	17.7	10.5	19.4	12.7	85.4	57.0	72.9
1947...	15.9	6.4	4.9	11.3	7.4	19.5	13.1	84.9	64.0	76.7
1948...	17.1	7.7	9.8	13.1	11.4	15.7	9.1	76.2	60.0	68.5
1949...	16.2	6.9	9.1	13.4	11.1	16.0	9.0	75.6	65.3	70.7
1950...	16.6	6.2	9.3	16.3	12.7	16.3	9.0	72.6	61.4	67.1
1951...	15.8	6.5	8.0	12.9	10.3	16.5	9.5	74.7	62.2	68.9

Section 4.—Trade by Commodities

The tables in this Section provide detailed information about the composition of Canada's imports and exports, with commodities shown by groups and individually.

10.—Imports and Exports, by Main Groups, 1939, 1950 and 1951

Group	Imports			Domestic Exports			Total Trade ¹		
	1939	1950	1951	1939	1950	1951	1939	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
United Kingdom									
Agricultural and veget- able products.....	13,033	27,960	21,316	94,205	228,795	231,585	107,250	256,788	253,040
Animals and products.....	4,304	9,722	12,778	73,577	53,346	29,860	77,941	63,132	42,695
Fibres and textiles.....	41,194	112,913	139,094	3,464	1,139	1,265	44,783	114,707	140,878
Wood and paper.....	3,046	3,682	4,345	43,937	40,687	141,181	47,020	44,457	145,568
Iron and its products.....	19,253	148,850	126,553	15,977	10,099	19,914	35,420	159,604	148,344
Non-ferrous metals.....	5,108	38,321	42,621	83,363	117,401	181,635	88,516	155,793	225,097
Non-metallic minerals.....	12,020	30,202	32,864	3,430	9,527	13,072	15,507	39,789	46,124
Chemicals and allied products.....	7,375	14,047	16,188	5,731	5,993	10,370	13,117	20,104	26,806
Miscellaneous commod- ities.....	8,674	18,516	25,225	4,415	2,923	2,579	13,339	22,376	28,153
Totals, United Kingdom.....	114,097	404,213	420,984	328,099	469,910	631,461	442,893	876,750	1,056,705
United States									
Agricultural and veget- able products.....	45,361	180,072	208,451	79,469	176,937	263,443	125,187	358,095	472,857
Animals and products.....	16,936	57,240	73,546	44,117	253,333	265,528	61,942	312,521	341,327
Fibres and textiles.....	41,564	151,776	220,966	2,306	18,343	19,588	44,791	172,893	244,841
Wood and paper.....	28,687	92,329	125,630	165,824	1,016,396	1,114,581	194,797	1,109,244	1,240,942
Iron and its products.....	158,138	811,008	1,146,841	4,954	136,445	169,188	164,805	957,992	1,330,364
Non-ferrous metals.....	29,243	135,685	192,827	49,538	267,043	278,009	79,557	405,866	473,655

¹ Includes exports of foreign produce.

10.—Imports and Exports, by Main Groups, 1939, 1950 and 1951—concluded

Group	Imports			Domestic Exports			Total Trade ¹		
	1939	1950	1951	1939	1950	1951	1939	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
United States—concl.									
Non-metallic minerals.....	106,095	430,859	435,856	16,161	73,983	89,926	124,664	510,372	530,719
Chemicals and allied products.....	30,668	134,603	165,061	9,684	58,499	67,253	40,634	194,118	233,607
Miscellaneous commodities.....	40,206	136,904	243,748	8,339	20,009	30,159	50,275	159,835	278,527
Totals, United States.	496,898	2,130,476	2,812,927	380,392	2,020,988	2,297,675	886,652	4,180,936	5,146,839
All Countries									
Agricultural and vegetable products.....	127,835	484,475	542,641	220,118	636,898	894,210	348,651	1,123,011	1,438,395
Animals and products.....	32,758	86,968	125,562	131,804	365,775	348,083	165,537	454,844	476,207
Fibres and textiles.....	100,866	364,509	483,520	14,428	29,573	36,858	116,435	398,124	528,754
Wood and paper.....	33,703	100,366	137,047	242,541	1,112,945	1,399,076	276,578	1,213,988	1,536,973
Iron and its products.....	183,160	980,229	1,332,251	63,102	251,109	342,299	248,297	1,244,307	1,692,766
Non-ferrous metals.....	42,108	215,526	290,848	182,890	457,263	569,870	225,852	676,123	865,139
Non-metallic minerals.....	132,824	611,741	684,535	29,332	103,655	131,529	164,660	721,427	821,392
Chemicals and allied products.....	43,706	158,221	191,813	24,263	100,525	131,690	68,299	259,957	325,596
Miscellaneous commodities.....	54,096	172,218	296,638	16,448	60,644	60,895	72,669	239,545	363,018
Totals, All Countries.	751,056	3,174,253	4,084,856	924,926	3,118,387	3,914,460	1,686,978	6,331,326	8,045,241

¹ Includes exports of foreign produce.

11.—Leading Imports, 1926, 1930, 1940, 1946 and 1949-51

NOTE.—Commodities are arranged in order of importance in 1951.

Commodity	1926	1930	1940	1946	1949	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Petroleum and products.....	52,508	66,620	66,155	123,743	274,664	307,963	353,894
Machinery, except agricultural.....	38,684	50,435	71,497	130,287	216,316	226,249	328,741
Automobile parts.....	27,466	23,359	47,580	66,453	117,748	158,405	195,177
Farm implements and machinery.....	17,631	21,944	30,673	68,352	177,210	161,642	195,082
Rolling-mill products.....	47,710	46,509	55,610	53,376	98,093	93,639	173,127
Coal.....	59,760	56,694	49,630	120,354	141,149	174,764	168,070
Electrical apparatus.....	16,697	30,281	21,250	47,788	69,802	82,565	120,101
Cotton, raw and linters.....	23,722	14,653	25,884	44,397	67,036	90,561	96,570
Wool, raw and unmanufactured.....	10,159	6,007	26,353	29,825	37,404	55,306	94,809
Fruits.....	29,523	30,974	27,943	95,496	72,623	90,986	94,735
Engines and boilers.....	13,908	10,827	12,385	29,462	58,695	54,640	88,422
Cotton products.....	32,858	25,563	24,646	74,761	73,394	66,883	86,580
Sugar and products.....	37,883	26,496	29,115	39,879	71,084	86,945	85,862
Rubber and products.....	29,991	12,842	35,115	20,079	29,020	48,680	84,529
Automobiles, freight and passenger.....	24,381	20,560	15,438	31,702	44,150	85,917	70,624
Wool products.....	39,199	33,339	20,611	34,744	62,656	52,383	67,723
Books and printed matter.....	13,433	16,827	16,655	30,737	36,077	42,489	50,913
Coffee and chicory.....	6,104	5,135	3,666	16,162	28,910	42,546	49,598
Tourist purchases.....	—	—	3,883	9,125	28,848	33,090	47,071
Grains and products.....	17,197	16,628	7,388	20,197	25,857	39,407	46,086
Clay and products.....	8,196	10,747	11,125	17,825	32,965	33,699	43,404
Pipes, tubes and fittings.....	3,835	4,103	4,448	8,411	28,145	35,394	43,183
Aircraft and parts.....	—	1,346	10,646	9,448	13,256	10,942	41,438
Oils, vegetable.....	12,244	11,518	10,050	15,062	22,596	34,248	38,950
Synthetic fibres and manufactures of.....	5,500	13,781	6,692	22,103	30,129	21,299	35,453
Paper.....	10,978	12,908	8,858	18,834	20,068	23,434	34,831

11.—Leading Imports, 1926, 1930, 1940, 1946 and 1949-51—concluded

Commodity	1926	1930	1940	1946	1949	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Stone and product.....	5,747	7,059	7,584	14,676	23,849	24,620	33,966
Glass and glassware.....	8,515	8,285	10,141	23,258	25,403	28,150	31,769
Vegetables.....	6,352	9,345	7,712	27,242	19,185	24,504	31,390
Flax, hemp, jute and products.....	15,643	11,808	14,993	23,142	20,130	25,589	31,092
Refrigerators and parts.....	—	2,101	3,870	5,201	7,342	15,353	30,620
Precious metals, except gold.....	2,631	2,164	8,199	13,897	17,661	31,398	30,208
Wood, unmanufactured.....	12,698	11,029	6,934	8,586	14,908	17,896	28,218
Aluminum and products.....	4,870	6,296	8,946	14,693	18,223	18,716	28,071
Synthetic resins.....	—	—	2,839	14,519	15,165	20,384	28,018
Scientific and educational equipment.....	3,877	4,290	6,291	13,820	21,721	23,161	27,011
Inorganic chemicals.....	6,260	7,363	11,480	12,564	18,534	23,036	26,793
Meats.....	5,221	6,739	4,962	2,347	5,652	8,392	23,510
Vegetable fibres.....	5,126	3,669	4,327	8,806	8,119	11,210	23,317
Wood, manufactured.....	9,336	9,210	5,653	11,467	15,273	16,546	23,084
Settlers' effects.....	7,367	11,755	3,516	7,726	13,527	12,391	22,892
Nuts.....	4,621	4,158	4,167	22,591	23,187	22,373	22,780
Iron ore.....	2,854	3,324	5,513	6,467	12,057	16,802	22,671
Drugs and medicines.....	3,101	3,652	4,337	9,371	14,829	18,629	22,427
Coal products.....	7,521	6,359	6,080	12,728	15,734	15,582	22,279
Furs and products.....	12,560	9,585	8,856	27,292	19,576	21,999	21,586
Tea.....	12,517	12,660	10,805	10,208	21,347	28,611	21,018
Paints and varnishes.....	4,378	4,664	5,501	9,437	13,866	18,212	20,827
Brass and copper and products.....	11,457	13,753	6,447	9,454	14,721	16,863	20,475
Tin.....	3,486	1,855	6,346	6,109	7,910	10,399	19,626
Tools.....	2,337	2,351	4,101	10,135	11,361	13,484	19,117
Cooking and heating apparatus.....	652	2,026	3,028	10,462	11,547	14,941	18,911
Beverages, alcoholic.....	28,339	37,937	6,031	12,911	22,020	16,860	18,381
Leather and manufactures of.....	9,031	9,728	6,659	9,243	12,126	15,235	17,032
Wire and chain.....	4,084	3,337	4,452	5,563	12,008	10,192	16,775
Hardware and cutlery.....	3,760	3,740	3,203	7,431	11,650	11,783	16,700
Ores of metals.....	368	283	2,169	866	7,416	11,647	15,584
Rags and waste.....	1,588	2,106	3,657	6,037	6,911	9,754	15,104
Hides and skins.....	9,201	6,047	6,181	3,651	12,388	13,250	14,212
Milk and products.....	3,966	12,975	455	1,125	2,493	3,875	13,858
Dyeing and tanning materials.....	3,654	3,372	7,265	9,209	10,294	12,908	13,759
Castings and forgings.....	4,688	2,823	4,318	7,445	12,587	9,580	13,739
Cocoa and chocolate.....	3,329	2,956	2,949	5,626	13,998	16,019	11,733
Clocks and watches.....	3,101	2,759	3,148	7,808	9,072	12,012	10,214
Animal oils, fats and greases.....	2,487	2,027	1,546	4,685	5,326	8,249	9,847

12.—Leading Domestic Exports, 1926, 1930, 1940, 1946 and 1949-51

NOTE.—Commodities are arranged in order of importance in 1951.

Commodity	1926	1930	1940	1946	1949	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Newsprint.....	114,091	133,371	151,360	265,865	433,882	485,746	536,372
Wheat.....	382,978	185,786	119,530	250,306	435,158	325,614	441,043
Wood-pulp.....	52,077	39,060	60,930	114,021	170,675	208,556	365,133
Planks and boards.....	61,943	36,743	67,737	125,391	160,420	290,847	312,198
Nickel.....	12,461	20,505	61,163	55,205	92,324	105,300	136,689
Grains, other than wheat.....	39,015	3,405	10,097	44,724	64,272	53,235	129,214
Aluminum and products.....	7,140	9,930	34,325	56,030	93,998	106,867	124,779
Fish and fishery products.....	35,982	31,050	31,651	86,488	93,749	112,718	117,464
Flour of wheat.....	71,994	37,540	26,352	126,733	97,693	93,839	113,854
Farm implements and machinery.....	16,935	10,302	9,537	28,662	92,527	87,811	106,438
Copper and products.....	15,009	31,355	52,659	37,005	86,623	87,587	87,188

12.—Leading Domestic Exports, 1926, 1930, 1940, 1946 and 1949-51—concluded

Commodity	1926	1930	1940	1946	1949	1950	1951
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Zinc and products.....	8,615	6,254	12,038	27,769	55,862	58,893	84,450
Asbestos and products.....	10,705	8,653	15,833	24,481	37,298	63,475	81,831
Meats.....	31,642	7,569	63,289	128,936	68,120	74,518	72,462
Pulpwood.....	14,067	13,612	12,522	28,731	31,317	34,768	68,103
Automobiles, freight and passenger.....	32,737	13,799	54,306	57,194	28,055	28,192	63,363
Cattle.....	13,294	3,398	12,442	18,015	61,449	79,126	63,065
Beverages, alcoholic.....	24,539	22,767	9,334	36,296	34,588	43,507	56,463
Precious metals, except gold.....	13,528	11,589	14,053	21,469	27,918	33,568	48,524
Lead and products.....	13,780	8,274	9,490	16,846	42,187	38,199	45,392
Machinery, except agricultural.....	4,451	6,109	13,458	15,535	31,840	25,644	40,271
Paper, other than newsprint.....	7,324	5,069	19,519	21,573	19,039	19,568	37,734
Fertilizers.....	4,664	5,606	8,584	32,108	39,385	38,874	35,734
Ferro-alloys.....	3,413	2,694	6,007	9,485	19,182	17,075	31,347
Furs and products.....	19,490	15,357	16,176	32,291	23,327	25,298	29,864
Rubber and products.....	25,970	25,243	12,950	22,477	25,780	12,153	29,067
Seeds.....	9,035	3,188	3,358	13,228	43,769	30,712	27,915
Shingles.....	8,752	4,132	7,606	11,211	16,803	32,401	27,483
Abrasives, artificial, crude.....	2,908	2,842	7,601	11,727	11,466	14,767	21,377
Ore, iron.....	7	3	924	4,353	14,117	13,310	18,596
Veneers and plywoods.....	243	145	3,763	12,026	7,703	12,315	18,046
Electrical apparatus.....	1,695	2,291	3,283	20,930	12,293	11,089	17,729
Tobacco.....	2,047	1,329	2,744	6,446	8,885	10,643	16,620
Automobile parts.....	5,485	1,588	10,290	21,110	10,752	12,036	15,763
Pigs, ingots and blooms, iron.....	108	67	12,900	3,328	4,957	21,331	14,433
Hides and skins.....	6,707	4,781	3,681	1,647	14,358	14,410	13,791
Fruits.....	7,244	10,401	5,862	15,124	13,186	15,336	13,494
Settlers' effects.....	7,146	5,758	2,072	9,712	10,938	10,875	12,758
Rolling-mill products, iron.....	2,686	1,535	6,886	7,528	15,548	7,121	11,806
Milk products, other than cheese.....	16,464	6,154	4,681	12,975	13,844	11,030	11,267
Cotton products.....	786	814	9,372	10,551	5,169	7,152	10,961
Vegetables.....	13,891	9,942	5,175	13,754	6,602	8,388	10,550
Cheese.....	24,858	13,207	15,723	21,948	16,257	16,552	10,232
Engines, including locomotives.....	302	187	239	28,764	31,394	14,986	9,844
Soda and sodium compounds.....	3,421	3,140	5,935	4,414	4,174	5,497	9,680
Leather and products.....	8,591	5,522	8,000	16,938	7,229	7,948	9,166
Ships and vessels.....	437	708	101	17,856	42,458	22,847	8,774
Fodders.....	923	1,161	1,538	8,593	3,294	5,483	8,563
Paints and varnishes.....	502	481	2,325	4,407	3,604	4,025	7,999
Electric energy.....	—	4,244	4,892	7,070	4,845	6,102	7,938
Aircraft.....	—	—	5,985	9,507	24,935	4,383	7,524
Wool products.....	1,633	1,120	1,561	18,945	5,395	6,298	7,497
Polystyrene.....	—	—	—	—	—	2,129	6,776
Oils, animal.....	2,644	1,083	1,339	2,402	6,044	5,455	6,522
Drugs and medicines.....	568	633	1,596	5,343	3,885	4,298	6,037
Brass and products.....	854	1,461	2,262	3,373	4,279	3,362	5,660
Scientific and educational equipment.....	5,711	4,599	2,576	3,105	3,210	2,646	5,520
Hardware and cutlery.....	3,445	1,687	3,563	4,176	4,512	4,500	5,160

Detailed Imports and Exports.—Detailed statistics of all commodities of any importance imported into Canada from all countries, from the United Kingdom and from the United States, during the calendar years 1948-51, are given in Table 13 while corresponding statistics for domestic exports appear in Table 14.

13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item	All Countries			
		1948	1949	1950	1951
I. Agricultural and Vegetable Products					
A. MAINLY FOOD					
Fruits—					
1	Fruits, fresh..... \$	38,806,933	46,376,684	57,883,759	59,687,372
2	Fruits, dried..... lb. \$	94,304,651	84,561,795	91,754,819	90,770,584
		10,372,736	9,639,734	11,878,275	12,752,564
3	Fruits, canned or preserved..... \$	5,725,810	7,686,072	10,832,511	13,541,824
4	Fruit juices and fruit syrups..... gal. \$	7,828,413	10,727,647	9,900,719	10,686,943
		4,655,527	8,920,845	10,391,102	8,753,428
	Totals, Fruits..... \$	59,561,006	72,623,335	90,985,647	94,735,191
5	Nuts..... \$	31,027,036	23,187,420	22,372,557	22,780,324
Vegetables—					
6	Vegetables, fresh..... \$	6,845,449	18,459,891	23,258,901	26,295,324
7	Vegetables, dried..... \$	102,727	252,922	453,176	1,598,925
8	Vegetables, canned..... lb. \$	2,251,100	292,338	1,613,446	14,558,732
		310,954	77,920	336,625	1,848,116
9	Pickles, sauces and catsups..... gal. \$	320,954	348,841	451,245	1,830,485
		264,194	393,820	454,810	1,647,830
	Totals, Vegetables..... \$	7,523,324	19,184,553	24,503,512	31,390,195
Grains and Farinaceous Products—					
10	Grains..... \$	27,649,298	23,179,116	36,041,202	40,799,292
11	Milled products..... \$	1,155,586	824,037	649,222	1,060,661
12	Prepared foods and bakery products..... \$	1,273,553	1,581,098	2,401,701	3,911,085
13	Other farinaceous products..... \$	486,139	273,088	314,868	315,013
	Totals, Grains and Farinaceous Products..... \$	30,564,576	25,857,339	39,406,993	46,086,051
14	Oils, vegetable, for food..... \$	2,046,136	3,261,471	3,085,866	4,020,548
15	Sugar and its products..... \$	71,751,972	71,084,197	86,944,954	85,862,388
16	Cocoa and chocolate..... \$	16,459,648	13,997,722	16,018,701	11,733,095
17	Coffee and chicory..... lb. \$	88,286,198	98,740,143	83,913,500	89,765,806
		23,913,935	28,909,886	42,545,733	49,597,626
18	Spices..... lb. \$	4,527,993	4,595,908	5,660,407	5,390,009
		1,928,472	2,233,041	4,388,938	3,755,983
19	Tea..... lb. \$	36,206,451	43,193,575	55,198,271	42,456,287
		17,738,846	21,347,150	28,610,731	21,017,954
20	Other vegetable products mainly food..... \$	3,655,287	2,269,123	2,975,921	2,690,506
	TOTALS, A. MAINLY FOOD..... \$	266,170,238	283,955,237	361,839,553	373,669,861
B. OTHER THAN FOOD					
Beverages, Alcoholic—					
21	Brewed..... \$	157,720	210,267	163,697	245,634
22	Distilled..... pf. gal. \$	2,377,849	2,631,654	2,257,276	3,098,723
		13,534,500	19,574,536	14,525,215	15,589,620
23	Wines..... \$	1,999,800	2,235,405	2,171,163	2,545,267
	Totals, Beverages, Alcoholic..... \$	15,692,020	22,020,208	16,860,075	18,380,521
24	Gums and resins..... \$	6,213,823	5,302,253	5,998,974	6,450,067
25	Oil cake and oil cake meal..... cwt. \$	72,880	627,592	401,352	921,977
		377,925	2,327,950	1,626,823	3,781,402
26	Oils, vegetable, not food..... \$	18,865,747	20,550,327	31,162,293	34,929,198
27	Plants, shrubs, trees and vines..... \$	1,703,563	1,894,386	2,265,085	2,932,625
28	Rubber and manufactures of..... \$	31,606,871	29,019,563	48,679,690	84,529,303
29	Seeds..... \$	1,823,555	4,069,841	7,132,545	8,453,292
30	Tobacco and manufactures of..... \$	3,170,373	3,941,677	3,998,898	3,668,036
31	Other vegetable products, not food..... \$	4,295,146	4,311,401	4,911,395	5,846,864
	TOTALS, B. OTHER THAN FOOD..... \$	83,749,023	93,437,606	122,635,778	168,971,308
	Totals, Agricultural and Vegetable Products..... \$	349,919,261	377,392,843	484,475,331	542,641,169

the United Kingdom and the United States, 1948-51

United Kingdom				United States				No.
1948	1949	1950	1951	1948	1949	1950	1951	
—	—	—	—	18,543,842	25,283,575	34,791,540	37,890,484	1
—	—	332,473	48	41,677,802	34,944,112	32,552,198	38,040,220	2
—	—	40,331	22	4,400,059	4,355,456	5,015,566	6,194,660	3
98,675	416,986	448,478	599,566	668,274	1,452,394	2,224,675	5,789,100	4
278	1,047,892	130,444	11,675	7,100,792	8,372,419	6,993,565	9,327,771	5
4,552	834,744	111,083	18,981	3,900,779	6,959,850	7,985,420	7,710,801	6
103,227	1,251,730	599,892	618,569	27,512,954	38,051,275	50,017,201	57,585,045	7
19,596	43,476	92,356	59,870	14,345,080	9,862,971	4,404,703	3,979,964	8
296	227	2,299	1,186	5,189,843	14,578,659	20,918,172	22,677,187	9
3,314	104,677	224,879	1,042,882	56,527	73,506	118,236	474,356	10
—	900	1,170	9,169	2,030,596	132,680	530,225	9,448,669	11
—	462	110	920	246,129	14,999	93,553	1,038,858	12
5,242	5,247	14,845	9,161	206,194	46,379	176,512	1,436,783	13
16,239	15,891	33,842	23,016	66,313	42,854	126,488	1,264,765	14
19,849	121,257	261,130	1,068,004	5,558,812	14,710,018	21,256,449	25,455,166	15
215	—	1,093	—	27,632,443	23,122,919	32,950,231	37,612,833	16
1,792	1,162	949	2,223	1,139,093	802,932	621,686	1,047,205	17
895,403	942,843	1,758,430	2,360,576	313,875	535,601	536,605	1,423,660	18
1,485	—	28	601	251,434	179,461	193,914	220,303	19
898,895	944,005	1,760,500	2,363,400	29,336,845	24,640,913	34,302,436	40,304,001	20
—	298,555	61,982	—	1,553,311	2,654,680	2,550,912	3,752,334	21
1,324,774	1,304,896	4,579,000	3,121,993	560,511	950,874	737,877	1,440,132	22
485,923	1,495,418	2,761,086	275,339	38,904	51,451	1,603,983	3,313,542	23
322,360	129,518	2,521,093	371,117	354,255	528,873	1,455,273	1,903,475	24
296,800	40,844	1,379,052	213,059	204,868	328,983	1,087,302	1,574,840	25
650,234	605,632	442,695	603,472	516,053	1,067,426	888,564	832,399	26
426,617	425,256	448,320	311,369	282,961	586,380	552,865	543,922	27
280,428	502,363	458,752	513,491	44	49,546	71,937	48,808	28
140,033	235,834	251,510	290,363	63	19,240	44,508	24,539	29
110,422	57,952	271,248	239,359	3,487,782	2,047,631	2,467,421	2,326,257	30
3,826,136	6,219,223	12,466,076	8,561,325	82,882,091	93,904,416	119,025,657	140,299,742	31
157,587	197,714	161,749	236,890	133	9,903	98	20	32
989,796	1,041,392	1,118,136	1,312,207	515,397	757,192	276,974	636,425	33
8,492,300	11,996,130	8,834,495	9,195,573	1,346,516	3,991,727	2,336,247	2,186,655	34
108,624	227,804	150,547	191,175	47,795	36,092	47,732	34,085	35
8,758,511	12,421,648	9,146,791	9,623,638	1,394,444	4,037,722	2,384,077	2,220,760	36
57,336	107,379	168,235	90,289	4,614,958	4,266,722	4,808,204	5,306,051	37
—	—	—	—	72,880	627,592	390,038	921,977	38
1,872,522	279,244	2,511,429	426,505	377,925	2,327,950	1,594,895	3,781,402	39
42,325	32,793	36,247	65,169	6,348,703	17,317,090	20,116,756	15,436,530	40
520,495	758,531	1,394,979	1,775,640	585,378	581,336	779,016	1,256,569	41
16,631	823,451	2,006,890	444,208	14,041,446	15,304,731	20,379,298	26,146,489	42
95,759	118,225	119,224	131,272	1,455,106	2,648,519	4,171,261	6,881,649	43
105,641	46,445	110,539	197,544	1,435,513	2,324,751	2,583,017	2,320,362	44
—	—	—	—	3,419,560	3,659,175	4,229,538	4,801,067	45
11,469,220	14,587,716	15,494,334	12,754,265	33,673,033	52,467,996	61,046,062	68,150,879	46
15,295,356	20,806,939	27,960,410	21,315,590	116,555,124	146,372,412	180,071,719	208,450,621	47

13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item	All Countries			
		1948	1949	1950	1951
II. Animals and Animal Products					
1	Animals, living..... \$	3,343,749	2,946,894	2,249,817	3,166,883
2	Bone, ivory and shell products..... \$	1,056,664	925,642	922,376	1,100,573
3	Feathers and quills and manufactures of..... \$	411,636	612,253	622,781	802,038
4	Fishery Products, <i>n.o.p.</i> —				
5	Fish, fresh or frozen..... \$	2,537,354	1,958,952	1,325,872	2,309,565
5	Fish, salted, dried, smoked or pickled..... lb.	8,613,218	3,230,163	2,362,425	2,576,317
	\$	886,767	452,458	357,757	380,037
6	Fish, canned or preserved, <i>n.o.p.</i> \$	1,378,490	2,194,379	1,864,470	2,833,841
7	Other fishery products, <i>n.o.p.</i> \$	716,893	694,649	780,613	901,660
	Totals, Fishery Products, <i>n.o.p.</i> \$	5,519,504	5,300,438	4,328,712	6,425,108
8	Furs and manufactures of..... \$	24,567,786	19,575,733	21,998,958	21,586,369
9	Hairs and bristles and manufactures of..... \$	1,994,917	2,325,414	2,414,154	3,296,611
10	Hides and skins, raw (except fur skins)..... No.	225,669 ¹	3,691,232	3,334,534	2,715,160
	\$	8,351,403	12,388,278	13,250,251	14,211,736
11	Leather, unmanufactured..... \$	4,985,015	6,644,934	8,396,187	9,413,621
12	Leather, manufactured..... \$	5,425,317	5,480,774	6,389,230	7,618,333
13	Meats..... \$	825,266	5,652,220	8,392,475	23,509,614
14	Milk and its products..... \$	10,704,387	2,492,726	3,875,263	13,858,047
15	Oils, fats, greases and waxes..... \$	11,871,509	5,326,361	8,249,468	9,846,662
16	Other animal products..... \$	5,644,502	4,424,779	5,877,970	10,726,422
	Totals, Animals and Animal Products. \$	84,701,655	74,096,446	86,967,642	125,562,023
III. Fibres and Textiles					
Cotton and Its Products—					
17	Cotton, raw and unmanufactured..... lb.	183,526,275	221,245,187	246,208,448	214,707,322
	\$	57,182,285	67,288,820	90,927,016	96,569,667
18	Yarn, thread and cordage..... lb.	9,408,666	7,556,836	5,751,452	8,620,429
	\$	12,899,324	9,319,464	7,963,543	15,304,761
19	Piece goods (fabrics)..... lb.	39,629,699	44,076,096	36,742,289	41,394,177
	\$	52,815,466	52,665,702	45,901,357	54,984,071
20	Other cotton products..... \$	12,449,997	11,156,741	12,652,561	16,290,789
	Totals, Cotton and Its Products..... \$	135,347,072	140,430,727	157,444,477	183,149,288
21	Flax, hemp, jute and manufactures of..... \$	27,259,021	20,129,682	25,589,198	31,091,992
22	Silk and manufactures of..... \$	3,842,813	5,566,265	7,712,259	7,631,573
Wool and Its Products—					
23	Wool, raw and unmanufactured..... lb.	60,795,229	45,315,224	51,302,972	44,586,013
	\$	47,743,965	37,403,644	55,305,983	94,809,397
24	Piece goods (fabrics)..... lb.	13,089,207	11,777,948	10,496,962	9,647,393
	\$	42,647,648	41,747,340	31,719,026	38,566,565
25	Other woollen products..... \$	21,674,496	20,908,809	20,663,762	29,156,198
	Totals, Wool and Its Products..... \$	115,066,109	100,059,793	107,688,771	162,532,160
26	Synthetic textile fibre and manufactures of.. \$	29,679,683	30,129,156	21,299,101	35,452,640
27	Other textile products..... \$	39,424,479	36,716,213	44,775,025	63,662,729
	Totals, Fibres and Textiles..... \$	350,619,180	333,031,836	364,508,831	483,520,382
IV. Wood, Wood Products and Paper					
28	Lumber and timber..... M ft.	42,919	80,627	86,174	132,538
	\$	5,554,445	9,524,659	11,629,216	17,776,625
29	Other wood, unmanufactured..... \$	5,929,234	5,382,926	6,267,037	10,440,991
30	Wood, manufactured..... \$	13,765,673	15,272,610	16,546,431	23,084,326
31	Paper and manufactures of..... \$	17,212,565	20,068,438	23,433,530	34,831,145
32	Books and printed matter..... \$	31,268,051	36,077,921	42,489,410	50,913,423
	Totals, Wood, Wood Products and Paper. \$	73,729,968	86,326,584	100,365,624	137,046,510

¹ Cwt.

the United Kingdom and the United States, 1948-51--continued

United Kingdom				United States				No.
1948	1949	1950	1951	1948	1949	1950	1951	
264,741	222,268	259,514	327,277	3,037,239	2,706,763	1,963,128	2,803,224	1
342,769	315,828	274,192	340,783	542,230	471,421	539,916	622,223	2
20,971	26,687	23,254	48,784	306,571	397,670	413,048	346,518	3
411	539	512	849	626,846	1,279,629	1,055,339	1,399,541	4
80,659	164,757	504,157	586,782	366,840	231,733	223,057	140,342	5
12,520	25,193	69,442	83,577	58,812	49,766	44,771	28,108	6
39,464	15,798	36,078	29,763	79,088	1,124,364	709,317	1,005,629	7
3,029	3,637	6,989	3,209	482,783	562,728	659,876	691,282	8
55,424	45,167	113,021	117,398	1,247,529	3,016,487	2,469,303	3,124,560	9
437,805	536,072	755,857	1,914,672	21,153,883	17,476,858	18,946,672	16,794,006	10
21,351	17,293	18,716	14,547	1,810,439	2,159,479	2,259,109	2,873,133	11
—	5,132	1,620	30,696	144,204 ¹	2,243,119	2,188,829	1,789,499	12
3,086,436	3,152,201	4,787,955	5,372,166	4,705,913	9,937,486	9,153,083	9,878,810	13
1,765,320	1,347,222	2,606,567	3,182,012	1,649,611	3,275,652	3,341,831	3,417,541	14
57,657	51,433	66,180	545,646	3,250,291	3,523,683	2,967,965	3,683,764	15
10,926	4,100	12,290	13,180	328,024	2,656,775	4,846,857	15,424,396	16
3,074,018	367,729	258,326	126,971	251,683	311,078	377,386	721,330	17
326,879	110,381	543,475	697,187	3,296,660	4,848,034	7,826,576	9,508,522	18
				2,628,863	2,379,985	2,134,833	4,347,679	19
9,464,297	6,201,467	9,722,031	12,778,083	44,208,936	53,161,371	57,239,707	73,545,708	20
775	198	74,883	54,862	103,280,145	168,195,930	193,939,465	211,276,537	21
331	162	19,396	21,470	32,366,114	51,114,828	70,774,966	95,178,118	22
4,289,271	2,658,777	2,992,754	3,741,346	5,050,046	4,887,024	2,693,678	4,492,970	23
8,873,732	3,993,462	4,057,318	7,676,557	5,859,370	5,281,048	3,804,871	7,062,689	24
7,319,832	5,679,933	3,802,758	3,030,389	30,952,601	33,424,002	25,558,436	28,813,776	25
14,580,208	11,487,568	7,616,811	7,203,247	36,003,753	34,593,391	31,056,358	39,418,797	26
7,373,068	5,237,900	4,916,544	5,364,333	3,892,344	3,308,746	3,731,146	6,939,534	27
28,827,389	20,719,092	16,610,069	20,265,607	78,121,581	94,298,013	109,367,341	148,599,138	28
6,078,208	4,238,751	5,531,431	6,790,943	2,021,483	2,666,748	2,837,657	4,926,107	29
411,613	433,763	584,131	682,259	2,497,698	3,578,833	4,834,055	4,350,497	30
19,744,764	13,687,986	19,651,329	16,304,644	972,501	1,323,960	1,740,828	3,736,617	31
23,821,895	17,666,991	29,889,284	43,147,632	847,565	1,132,034	2,183,323	6,848,112	32
11,889,807	10,517,408	9,585,410	8,305,733	479,996	272,394	164,712	182,739	33
38,416,847	36,913,471	28,320,135	32,699,043	1,411,047	734,820	462,672	547,103	34
20,147,607	15,221,311	14,060,639	20,400,441	1,459,793	1,321,656	1,088,655	1,472,902	35
82,386,349	69,801,773	72,270,058	96,247,116	3,718,405	3,188,510	3,734,650	8,868,117	36
16,513,788	12,986,463	5,338,572	5,993,749	10,882,830	14,261,831	11,733,536	20,402,147	37
12,174,244	11,047,846	12,578,894	9,114,459	14,003,867	16,382,561	19,208,675	33,819,535	38
146,391,591	119,227,688	112,913,155	139,094,133	111,245,864	134,376,496	151,775,914	220,965,541	39
39	634	2,769	11,684	40,445	79,366	82,490	125,688	40
1,158	1,899	2,255	12,925	4,875,724	9,213,224	11,008,024	16,506,994	41
6,087	350,797	408,259	422,694	5,710,477	5,184,718	5,990,637	9,689,455	42
245,090	930,078	1,588,515	1,580,458	12,182,113	13,429,493	14,253,000	19,664,596	43
952,654	1,804,853	2,109,667	2,317,197	16,021,063	19,035,779	22,013,853	52,758,186	44
1,829,269				28,581,762	33,118,948	39,064,032	47,010,383	45
3,034,258	3,101,268	3,681,765	4,344,958	67,374,739	79,982,162	92,329,546	125,629,614	46

13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item		All Countries			
			1948	1949	1950	1951
V. Iron and Its Products						
1	Iron ore.....	ton	4,300,163	2,517,235	3,070,557	3,831,418
		\$	15,506,959	12,057,415	16,801,727	22,671,265
2	Ferro-alloys.....	\$	1,246,017	1,063,087	1,352,604	4,259,507
3	Pigs, ingots, blooms and billets.....	\$	4,470,587	5,419,791	3,375,898	11,387,617
4	Scrap iron or steel.....	\$	10,453,507	7,916,619	5,398,014	3,854,606
5	Castings and forgings.....	\$	9,793,469	12,587,835	9,580,131	13,739,383
6	Rolling-mill products.....	\$	83,929,042	98,092,891	93,639,001	173,127,013
7	Tubes, pipes and fittings.....	\$	18,598,169	28,144,786	35,393,818	43,182,776
8	Wire.....	\$	9,016,453	8,506,175	7,127,473	12,303,865
9	Chains.....	\$	3,636,607	3,501,410	3,064,506	4,470,801
10	Engines and boilers.....	\$	50,284,809	58,697,740	54,639,927	88,421,897
11	Farm implements and machinery.....	\$	139,993,374	177,210,372	161,642,021	195,081,777
12	Hardware and cutlery.....	\$	10,143,978	11,650,136	11,782,673	16,899,982
13	Machinery (except agricultural).....	\$	217,090,260	216,315,663	226,248,681	328,741,288
14	Springs.....	\$	179,656	104,382	110,698	119,148
15	Stamped and coated products.....	\$	4,476,094	5,748,392	8,287,010	10,128,840
16	Tools and hand implements.....	\$	10,998,696	11,361,189	13,483,504	19,117,292
Vehicles and Parts—						
17	Automobiles, freight.....	No.	3,348	3,270	6,770	5,642
		\$	5,874,814	5,179,164	10,587,697	13,991,589
18	Automobiles, passenger.....	No.	17,264	35,427	81,758	42,692
		\$	21,427,869	38,970,483	75,329,592	56,632,484
19	Automobile parts.....	\$	101,261,083	117,748,417	158,404,838	195,177,254
20	Other vehicles.....	\$	11,567,761	13,724,425	16,779,182	17,309,597
	Totals, Vehicles and Parts.....	\$	140,131,527	175,622,489	261,101,309	283,110,924
21	Other iron and steel products.....	\$	52,305,980	57,551,080	67,200,073	101,633,382
	Totals, Iron and Its Products.....	\$	782,255,184	891,551,452	980,229,068	1,332,251,363
VI. Non-Ferrous Metals						
Aluminum—						
22	Bauxite.....	cwt.	40,169,876	35,852,808	37,232,540	48,035,179
		\$	9,884,001	10,063,336	9,890,125	15,373,013
23	Aluminum and manufactures of, <i>n.o.p.</i>	\$	7,777,604	8,159,206	8,825,665	12,698,393
	Totals, Aluminum.....	\$	17,661,605	18,222,542	18,715,790	28,071,406
24	Brass and manufactures of.....	\$	9,733,687	12,708,260	14,491,830	16,422,410
25	Copper and manufactures of.....	\$	2,412,568	2,012,480	2,371,098	4,052,877
26	Lead and manufactures of.....	\$	290,858	944,248	594,835	786,269
27	Nickel and manufactures of.....	\$	5,174,099	6,637,548	6,880,228	6,098,654
28	Precious metals and manufactures of.....	\$	16,010,316	17,661,332	31,398,398	30,208,153
29	Tin and its products.....	\$	7,936,494	7,910,326	10,399,050	19,626,067
30	Zinc and manufactures of.....	\$	2,997,372	3,079,384	3,356,966	4,261,378
31	Alloys, <i>n.o.p.</i>	\$	1,557,752	933,931	1,346,988	2,092,860
32	Clocks and watches.....	\$	5,302,153	9,071,712	12,011,801	10,213,573
33	Electrical apparatus, <i>n.o.p.</i>	\$	62,127,222	69,802,480	82,564,937	120,101,053
34	Gas apparatus.....	\$	627,985	583,034	491,349	775,929
35	Printing materials.....	\$	1,785,381	2,015,171	2,380,033	2,184,479
36	Other non-ferrous metals.....	\$	22,194,475	23,109,275	28,523,263	45,953,375
	Totals, Non-Ferrous Metals.....	\$	155,811,967	174,691,723	215,326,566	290,848,483
VII. Non-Metallic Minerals						
37	Asbestos and manufactures of.....	\$	3,751,979	2,596,360	2,631,352	3,428,453
38	Clay and manufactures of.....	\$	30,772,690	32,965,203	33,699,110	43,403,839
Coal and Its Products—						
39	Coal, anthracite.....	ton	5,244,837	3,945,135	4,286,383	3,853,431
		\$	56,380,098	45,656,328	54,285,320	51,244,639
40	Coal, bituminous and coal, <i>n.o.p.</i>	ton	25,629,075	18,250,075	22,668,140	22,947,974
		\$	130,007,653	95,492,735	120,478,811	116,844,809
41	Coke.....	ton	851,791	716,361	642,254	956,755
		\$	14,584,678	12,305,245	11,029,927	16,911,483
42	Other coal products.....	\$	5,254,072	3,428,972	4,552,299	5,367,309
	Totals, Coal and Its Products.....	\$	206,226,501	156,883,280	190,346,357	190,368,240

the United Kingdom and the United States, 1948-51—continued

United Kingdom				United States				No.
1948	1949	1950	1951	1948	1949	1950	1951	
—	11	11	—	3,392,063	2,350,149	2,975,659	3,690,269	1
—	638	643	—	11,959,783	10,769,569	15,971,317	21,329,066	2
400,611	190,210	53,651	16,097	845,406	848,022	706,657	2,935,699	3
2,349	19,004	224,533	2,343	4,454,455	5,396,533	2,714,998	10,493,226	4
820	107	88	23,925	5,892,980	4,368,632	2,257,089	3,221,800	5
1,915,725	2,873,350	3,065,590	5,214,799	7,866,055	9,705,372	6,491,038	8,486,671	6
1,654,905	5,247,106	13,956,804	19,926,906	79,826,758	88,996,593	73,930,035	120,308,700	7
1,621,719	2,411,222	5,737,243	9,712,871	16,957,103	25,529,370	29,388,650	31,470,258	8
270,923	461,067	2,436,907	2,933,122	8,741,766	8,039,414	4,664,157	8,900,762	9
363,061	364,339	384,881	613,031	3,248,866	3,116,285	2,665,384	3,819,233	10
6,734,100	9,859,906	6,711,083	8,682,858	40,615,058	48,263,775	47,833,732	79,566,355	11
2,106,358	3,604,154	8,694,520	6,877,118	137,433,551	173,088,398	152,576,162	187,581,155	12
1,745,660	1,792,686	2,261,610	2,317,343	8,080,499	9,094,093	8,404,167	12,271,447	13
11,550,504	12,720,403	17,277,251	21,373,473	203,643,363	201,573,012	201,984,479	296,978,195	14
2,870	1,762	3,144	19,248	176,786	102,620	107,554	99,900	15
155,016	176,943	389,189	517,107	4,316,428	5,555,160	7,801,886	9,278,468	16
866,767	1,062,959	1,641,727	2,664,520	9,583,537	9,670,571	10,897,049	14,900,400	17
2,036	2,232	5,173	2,267	1,292	1,034	1,587	3,375	18
2,112,923	2,085,348	4,824,792	2,405,202	3,747,614	3,090,467	5,756,886	11,586,387	19
14,177	31,231	77,666	28,518	3,004	3,685	3,183	14,105	20
14,721,029	31,499,868	68,366,135	26,506,824	6,643,044	7,044,887	6,337,796	30,077,048	21
742,229	1,485,165	4,232,470	5,760,199	100,491,962	116,223,622	154,107,515	189,341,446	22
1,769,539	2,749,982	3,186,381	2,899,296	9,695,015	10,718,239	13,276,687	13,985,787	23
19,345,938	37,820,363	80,609,778	37,571,521	120,577,635	137,077,235	179,478,884	244,990,668	24
2,087,506	2,903,528	5,401,273	8,077,071	48,906,643	53,025,450	60,134,549	90,212,316	25
50,824,733	81,509,747	148,849,915	126,553,356	713,126,672	794,210,104	811,007,787	1,146,844,319	26
—	—	—	—	1,989,766	867,564	1,819,401	2,792,244	27
592,582	1,346,408	1,053,418	1,948,806	1,936,718	775,567	2,239,082	3,149,235	28
592,582	1,346,408	1,053,418	1,948,806	6,276,942	6,562,869	7,351,214	10,109,553	29
—	—	—	—	8,213,660	7,338,436	9,590,296	13,258,788	30
409,856	592,285	818,572	843,496	9,289,974	12,034,333	13,522,765	15,352,644	31
57,387	104,427	219,828	436,778	2,349,218	1,901,604	2,092,066	2,938,860	32
90,484	79,011	47,605	211,176	182,112	631,104	273,630	245,229	33
214,512	371,833	435,890	496,528	4,896,291	6,120,885	6,093,227	5,236,512	34
11,389,735	11,392,053	22,324,474	18,284,492	4,547,948	5,848,040	8,324,307	10,512,169	35
23,410	158,615	1,923,106	2,515,464	248,536	568,638	1,091,922	5,113,020	36
23,864	12,030	41,244	48,741	2,897,672	3,032,352	3,257,369	4,123,946	37
275,850	220,399	389,117	545,040	1,272,674	712,997	928,566	1,541,081	38
229,076	184,897	183,399	331,385	1,716,594	3,354,197	4,691,285	3,987,431	39
6,342,861	5,817,490	9,284,924	14,669,101	54,903,856	63,202,651	71,644,630	103,560,737	40
12,773	31,340	9,458	8,525	613,859	546,581	453,864	707,473	41
29,058	24,051	75,009	89,044	1,754,503	1,970,211	2,297,961	2,083,692	42
1,052,278	1,035,716	1,514,753	2,192,032	16,304,741	14,555,937	11,422,590	24,165,026	43
20,773,726	21,370,465	38,320,797	42,620,918	109,191,938	121,817,996	135,683,578	192,826,608	44
756,426	466,796	386,941	635,049	2,965,621	2,074,753	2,226,629	2,706,742	45
13,192,254	13,571,012	13,576,865	16,933,548	16,884,484	18,461,644	18,887,335	24,418,877	46
162,354	326,645	395,867	291,656	5,082,483	3,618,490	3,890,254	3,561,775	47
2,009,583	3,950,220	4,702,789	3,397,935	54,370,515	41,706,108	49,580,505	47,846,704	48
196	1,812	28,007	—	25,628,865	18,245,246	22,640,395	22,947,920	49
1,708	54,127	272,370	—	130,005,416	95,438,508	120,205,703	116,843,834	50
28	201	201	1	851,763	716,160	642,053	956,737	51
1,364	3,794	3,103	44	14,583,314	12,301,451	11,026,824	16,910,494	52
794,094	341,925	758,685	662,421	4,456,684	3,086,481	3,688,377	4,362,340	53
2,806,749	4,350,066	5,736,947	4,060,400	203,415,929	152,532,548	184,501,409	185,963,372	54

13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item	All Countries			
		1948	1949	1950	1951
VII. Non-Metallic Minerals—concluded					
1	Glass and manufactures of..... \$	25,925,237	25,402,867	28,150,003	31,768,775
2	Graphite and its products..... \$	532,577	505,264	566,024	788,533
3	Mica and manufactures of..... \$	407,202	567,469	757,825	976,467
Petroleum, Asphalt and Products—					
4	Petroleum, crude..... M gal.	2,717,306	2,648,986	2,804,519	2,948,512
	\$	197,140,292	193,146,495	204,135,857	233,363,537
5	Fuel oil for ships' stores..... gal.	12,504,179	13,327,449	10,695,294	14,258,112
	\$	756,688	669,887	442,869	679,982
6	Coal oil and kerosene..... gal.	76,868,321	36,618,392	15,722,711	18,971,434
	\$	8,791,014	3,687,650	1,855,875	2,321,563
7	Gasoline..... gal.	322,607,355	308,005,168	246,462,585	202,565,570
	\$	46,461,672	45,256,493	39,759,478	33,395,830
8	Lubricating oils..... gal.	16,176,373	16,464,087	17,710,328	28,898,979
	\$	5,631,949	4,669,755	5,315,068	9,946,077
9	Other petroleum and asphalt products.... \$	43,001,093	27,233,324	56,453,374	74,186,674
	Totals, Petroleum, Asphalt and Products. \$	301,782,708	274,663,604	307,962,521	353,893,663
10	Stone and its products..... \$	20,084,245	23,848,651	24,620,481	33,965,946
11	Other non-metallic minerals..... \$	16,699,117	17,895,815	23,007,754	25,941,420
	Totals, Non-Metallic Minerals..... \$	606,182,256	535,328,513	611,741,427	684,535,336
VIII. Chemicals and Allied Products					
12	Acids..... \$	3,926,038	4,134,227	5,613,559	7,541,211
13	Alcohols, industrial..... \$	1,493,303	602,390	880,171	1,227,877
14	Cellulose products..... \$	4,451,472	5,653,761	6,233,519	7,226,520
15	Drugs, medicinal and pharmaceutical products..... \$	13,163,602	14,828,906	18,629,297	22,427,117
16	Dyeing and tanning materials..... \$	10,117,384	10,293,926	12,907,549	13,759,164
17	Explosives..... \$	1,139,658	1,909,771	1,385,735	1,652,679
18	Fertilizers..... cwt.	6,426,175	7,108,471	7,446,737	8,223,278
	\$	6,297,690	7,768,394	8,792,439	10,234,838
19	Paints, pigments and varnishes..... \$	14,276,958	13,806,352	18,211,825	20,826,503
20	Perfumery, cosmetics and toilet preparations. \$	192,706	288,975	357,674	646,619
21	Soap, common laundry..... lb.	7,003,678	1,492,293	2,376,681	2,232,190
	\$	967,683	176,311	286,664	316,397
22	Soap, other..... \$	519,109	453,673	569,185	671,216
Inorganic Chemicals, <i>n.o.p.</i> —					
	Alum and compounds of aluminum and iron cwt.	74,596	104,994	107,653	213,747
	\$	173,848	230,827	291,149	535,929
24	Ammonia and its compounds..... lb.	5,648,585	6,774,178	20,944,861	15,768,181
	\$	214,206	260,123	817,977	647,273
25	Compounds of antimony, arsenic, copper, tin and zinc..... lb.	1,851,007	3,129,026	3,867,857	2,914,051
	\$	154,881	265,059	284,446	293,347
26	Potash and potassium compounds, <i>n.o.p.</i> ... lb.	9,424,895	6,885,797	8,311,341	9,504,604
	\$	745,665	693,402	815,015	1,028,463
27	Soda and sodium compounds, <i>n.o.p.</i> lb.	257,181,889	160,342,729	234,391,731	365,832,915
	\$	9,532,995	8,396,192	9,154,542	11,497,777
28	Other inorganic chemicals..... \$	7,659,213	8,687,926	11,673,211	12,790,185
	Totals, Inorganic Chemicals, <i>n.o.p.</i> \$	18,480,808	18,533,529	23,036,340	26,792,974
29	Other chemicals and allied products..... \$	43,353,410	52,149,863	61,317,098	78,589,832
	Totals, Chemicals and Allied Products. \$	118,379,821	130,660,078	158,221,055	191,812,947
IX. Miscellaneous Products					
30	Amusement and sporting goods, <i>n.o.p.</i> \$	7,887,706	9,418,117	11,507,730	15,881,079
31	Brushes..... \$	642,912	928,070	993,686	1,280,870
32	Containers, <i>n.o.p.</i> \$	3,654,264	4,743,862	5,821,110	7,628,265
33	Household and personal equipment..... \$	12,483,466	16,106,344	26,852,160	44,908,354
34	Mineral and aerated waters..... \$	56,822	61,757	86,611	103,049
35	Musical instruments..... \$	3,356,600	3,800,411	3,861,103	4,738,636
36	Scientific and educational equipment..... \$	17,909,541	21,721,476	23,161,004	27,010,665
37	Ships and vessels..... \$	1,820,161	1,108,941	1,658,036	2,729,617
38	Vehicles (except iron)..... \$	9,734,583	15,206,525	13,140,045	44,454,932
39	Works of art..... \$	1,894,816	2,516,138	2,471,515	3,262,143
40	Miscellaneous imports under special conditions \$	23,275,997	44,589,192	48,528,968	81,969,796
41	Other miscellaneous commodities..... \$	32,659,192	37,926,033	34,135,626	62,670,859
	Totals, Miscellaneous Products..... \$	115,346,060	158,127,766	172,217,594	296,638,265
	Grand Totals, Imports for Consumption. \$	2,636,945,352	2,761,207,241	3,174,253,138	4,084,856,478

the United Kingdom and the United States, 1948-51—concluded

United Kingdom				United States				No.
1948	1949	1950	1951	1948	1949	1950	1951	
4,667,664	5,644,314	6,065,878	6,321,195	17,024,342	16,902,618	18,375,666	20,449,504	1
63,817	68,684	90,905	102,867	405,189	366,667	422,864	608,711	2
8,357	11,618	37,741	32,487	241,850	351,872	474,724	544,948	3
—	—	—	—	1,183,373	1,053,802	1,094,514	760,522	4
—	—	—	—	90,760,702	82,714,313	90,278,634	59,811,632	5
—	—	—	—	12,473,161	13,327,449	10,695,294	14,258,112	6
—	—	—	—	754,773	669,887	442,869	679,982	7
—	—	—	226	51,940,463	33,157,266	11,388,660	15,631,880	8
—	—	—	556	6,073,461	3,382,452	1,389,949	1,952,184	9
—	—	—	—	299,643,381	303,050,782	204,115,317	182,233,536	10
—	—	—	—	43,852,288	44,135,208	32,827,557	30,271,192	11
5,318	7,990	29,794	26,570	16,130,457	16,417,278	17,655,339	28,822,084	12
5,098	8,101	21,722	21,181	5,593,596	4,628,880	5,268,208	9,877,788	13
4,705	2,743	64,121	10,662	40,206,909	24,522,047	39,436,646	55,433,578	14
9,803	10,844	85,843	32,399	187,241,729	160,052,787	169,643,863	158,026,356	15
611,326	1,553,660	2,734,153	3,472,013	16,945,901	20,939,817	19,946,539	24,398,739	16
1,645,447	962,079	1,486,543	1,274,082	11,247,851	11,950,508	16,379,875	18,738,703	17
23,761,843	26,639,073	30,201,816	32,864,040	456,372,896	383,633,214	430,858,904	435,855,952	18
424,374	637,589	959,517	1,361,730	3,318,726	3,374,243	4,332,341	5,473,182	19
8,369	—	1,147	1,672	1,035,371	591,451	872,802	1,216,530	20
309,440	642,562	818,013	912,857	4,132,133	4,975,425	5,363,212	6,094,769	21
1,309,280	1,143,204	1,664,666	1,681,080	11,324,610	12,908,164	16,178,810	19,619,856	22
1,030,508	1,248,097	1,721,531	1,853,528	7,474,667	7,106,474	8,370,078	8,380,411	23
13,624	633,259	376,679	88,266	990,531	1,049,540	920,590	1,464,984	24
5	340	4,555	8,783	5,506,772	6,041,051	6,251,275	7,537,072	25
2,121	3,402	4,321	18,561	4,613,136	5,998,785	6,846,050	9,002,585	26
1,034,755	1,213,678	2,526,380	2,922,200	13,159,913	12,607,197	15,582,991	17,669,049	27
51,144	60,280	107,930	67,106	57,226	98,988	95,722	406,153	28
524	142,353	86,362	21,320	7,002,492	1,846,972	2,215,513	2,209,770	29
46	24,556	14,334	2,700	967,489	151,135	260,041	313,433	30
129,037	100,353	124,422	110,648	365,931	343,675	429,498	433,011	31
11,274	47,864	59,726	154,558	63,322	57,130	47,705	58,529	32
28,474	66,711	100,557	260,699	145,374	164,116	189,953	272,730	33
1,214,616	883,445	929,073	2,021,396	4,544,377	5,890,733	10,999,112	10,701,523	34
69,195	49,433	57,754	109,556	145,011	210,690	757,505	531,885	35
684,062	1,052,447	2,614,975	628,220	1,148,718	1,848,002	1,122,242	1,644,895	36
43,635	62,023	145,782	56,013	110,730	191,185	111,439	174,519	37
366,658	322,159	967,649	1,068,416	8,998,385	6,191,600	6,001,219	7,301,965	38
114,914	84,382	148,868	175,420	616,142	558,093	528,046	698,416	39
21,949,388	15,759,415	78,559,769	134,301,269	234,738,975	142,489,084	151,302,152	226,754,416	40
1,023,772	962,707	2,092,723	2,992,526	8,478,960	7,331,384	6,557,852	7,971,541	41
154,200	221,168	390,665	351,132	7,374,866	8,411,684	11,100,983	12,238,955	42
1,434,190	1,446,424	2,936,349	3,945,346	16,871,083	16,867,152	19,245,778	21,888,046	43
1,040,110	1,294,416	2,791,754	3,222,445	41,749,241	48,960,796	56,105,095	73,098,848	44
6,787,092	8,447,820	14,047,043	16,188,139	106,060,057	115,033,025	134,603,008	165,060,857	45
2,248,063	1,992,537	2,465,298	2,700,209	4,974,228	5,475,519	7,084,026	11,146,526	46
269,939	322,817	362,517	613,471	365,030	595,115	598,409	587,742	47
1,434,267	1,610,767	2,018,007	2,520,429	1,520,172	2,091,880	2,551,669	3,086,074	48
1,678,848	2,736,070	3,672,222	3,436,383	10,196,899	12,181,521	21,446,243	39,435,901	49
1,874	4,522	5,931	3,233	16,488	4,486	12,241	18,837	50
282,600	337,895	458,590	516,043	2,298,380	2,575,801	2,532,414	3,263,130	51
1,604,813	1,087,728	1,285,188	1,336,808	16,296,377	19,601,404	20,284,738	23,370,006	52
33,584	42,209	157,581	268,844	1,785,282	1,059,467	1,232,710	2,101,916	53
718,799	2,522,593	1,885,123	3,078,854	9,013,194	12,666,843	11,245,627	41,067,444	54
1,022,027	1,008,957	866,620	1,030,126	611,696	944,245	737,152	838,508	55
8,698,567	3,082,090	2,209,224	3,010,066	12,667,696	40,093,556	44,888,485	77,456,279	56
5,716,013	5,397,148	3,130,216	6,656,832	21,881,117	25,983,448	24,290,052	41,375,715	57
23,169,394	20,145,333	18,516,517	25,225,298	81,626,559	123,273,285	136,903,766	243,748,078	58
299,502,200	307,449,800	404,213,449	420,984,515	1,805,762,785	1,951,860,065	2,130,475,929	2,812,927,298	59

14.—Principal Exports of Canadian Produce from Canada to All Countries,

No.	Item	All Countries			
		1948	1949	1950	1951
I. Agricultural and Vegetable Products					
A. MAINLY FOOD					
Fruits—					
1	Fruits, fresh..... \$	9,639,804	11,023,585	14,456,267	12,690,751
2	Fruits, dried..... lb. \$	990,570	589,929	677,406	35,864
		152,463	80,204	116,686	7,905
3	Fruits, canned or preserved..... lb. \$	8,213,578	13,972,905	3,890,845	3,413,137
		982,678	1,606,169	586,489	574,189
4	Fruit juices and fruit syrups..... gal. \$	317,383	555,047	213,328	219,201
		356,677	475,827	176,275	220,851
	Totals, Fruits..... \$	11,131,622	13,185,785	15,335,717	13,493,696
5	Nuts..... \$	15,036	8,973	7,027	20,668
Vegetables—					
6	Vegetables, fresh..... \$	7,224,754	5,397,523	6,131,526	6,658,029
7	Vegetables, dried..... lb. \$	896	547	29	494
		549	309	38	449
8	Vegetables, canned..... lb. \$	16,397,712	10,829,950	22,652,053	33,762,337
		1,941,293	1,106,810	2,116,079	3,706,456
9	Pickles, sauces and catsups..... \$	374,795	96,991	140,530	185,185
	Totals, Vegetables..... \$	9,541,391	6,601,633	8,388,173	10,550,119
Grains and Farinaceous Products—					
10	Wheat..... bu. \$	135,640,729	210,384,483	162,993,750	237,060,505
		243,023,370	435,158,365	325,613,570	441,042,753
11	Flour of wheat..... bbl. \$	12,378,066	9,698,024	10,095,002	12,078,671
		125,150,839	97,693,325	93,838,590	113,854,397
12	Prepared foods and bakery products..... \$	5,737,089	730,653	641,550	1,230,371
13	Other farinaceous products..... \$	90,454,250	76,341,240	69,267,348	154,064,803
	Totals, Grains and Farinaceous Products..... \$	464,365,548	609,923,583	489,361,058	710,192,324
14	Oils, vegetable, for food..... cwt. \$	52,945	13,475	7,572	768
		1,477,955	251,383	92,319	22,988
Sugar and Its Products—					
15	Confectionery, including candy..... \$	1,580,870	450,823	123,688	234,762
16	Maple sugar..... lb. \$	6,104,772	7,110,330	6,648,661	5,825,723
		2,499,469	3,090,383	2,914,133	2,435,438
17	Other sugar and products..... \$	1,745,196	1,628,629	3,184,198	1,833,729
	Totals, Sugar and Its Products..... \$	5,825,535	5,169,835	6,222,019	4,503,929
18	Cocoa and chocolate..... \$	696,067	87,066	145,989	294,604
19	Coffee and chicory..... \$	115,683	62,060	14,008	93,228
20	Spices..... \$	48,230	21,314	18,487	12,191
21	Tea..... \$	1,081,430	376,934	219,034	132,377
22	Other vegetable products..... \$	1,542,905	723,548	703,110	972,084
	TOTALS, A. MAINLY FOOD..... \$	495,841,402	636,412,114	520,506,941	740,288,208
B. OTHER THAN FOOD					
Beverages, Alcoholic—					
23	Ale, beer and porter..... gal. \$	1,713,902	1,405,199	1,554,726	2,023,974
		1,750,168	1,607,952	1,669,153	2,222,475
24	Whisky and other distilled beverages..... pt. gal. \$	4,004,611	4,279,600	4,762,280	6,198,627
		27,476,535	32,958,928	41,829,005	54,236,588
25	Wines..... gal. \$	23,975	11,158	6,320	2,154
		50,979	21,944	8,479	3,681
	Totals, Beverages, Alcoholic..... \$	29,277,682	34,588,824	43,506,637	56,462,744
26	Gums and resins..... \$	45,926	50,036	39,644	72,073
27	Oil cake and oil cake meal..... cwt. \$	841,733	453,122	765,247	1,122,000
		2,924,783	1,349,397	2,568,123	3,916,418
28	Oils, vegetable, not food..... \$	13,248,339	12,116,296	3,709,649	3,625,867
29	Plants, shrubs, trees and vines..... \$	126,277	148,759	113,239	120,542
30	Rubber and manufactures of..... \$	33,150,775	25,780,382	12,153,417	29,067,215

the United Kingdom and the United States, 1948-51

United Kingdom				United States				No.
1948	1949	1950	1951	1948	1949	1950	1951	
—	2,238,308	3,680,760	1,900,464	7,504,862	8,209,491	10,532,247	10,351,424	1
—	—	—	—	745,964	571,306	630,544	31,280	2
—	—	—	—	111,297	76,164	108,404	6,347	3
4,488,991	5,230,877	16,651	29,847	718,449	6,104,695	3,458,731	2,927,905	4
292,606	480,941	5,696	12,123	134,121	750,350	506,671	466,975	5
—	—	—	—	217,428	484,720	210,356	167,520	6
—	—	—	—	228,114	379,084	168,553	148,587	7
292,606	2,719,249	3,686,456	1,912,587	7,978,394	9,415,089	11,314,875	10,973,333	8
—	—	—	—	44	—	—	577	9
—	—	—	—	5,032,755	3,866,440	4,688,193	4,981,505	10
—	—	—	—	636	—	13	27	11
—	—	—	—	377	—	16	26	12
1,808,471	4,671,398	4,644,276	8,357,948	3,531	1,452,703	13,695,570	20,994,355	13
186,268	427,203	416,691	872,103	398	102,989	1,122,056	2,190,798	14
9,111	17,487	9,576	19,106	2,454	—	12,033	26,462	15
195,379	444,690	426,267	891,209	5,035,984	3,969,429	5,822,298	7,198,791	16
117,329,875	139,281,181	86,967,949	85,742,135	3,183,970	8,071,960	14,951,226	37,916,746	17
196,533,828	280,732,019	173,650,751	159,179,214	6,608,490	16,997,060	28,485,785	65,036,229	18
7,432,598	4,768,739	4,349,704	4,792,478	556	77,925	91,668	200,188	19
61,640,100	46,734,103	40,962,695	43,005,246	4,696	552,661	669,813	1,586,558	20
2,037	2,209	1,588	3,922	180,137	218,707	311,302	813,852	21
612,309	542,966	481,643	8,987,088	44,631,294	60,423,775	55,603,035	88,389,954	22
258,788,274	328,011,297	215,096,677	211,175,470	51,424,617	78,192,203	85,069,935	155,826,593	23
—	—	—	—	6,781	11,181	652	376	24
—	—	—	—	105,034	186,909	7,369	10,559	25
16,695	16,481	15,182	30,733	18,522	38,883	33,687	43,292	26
—	—	—	—	6,084,142	7,110,330	6,576,136	5,824,539	27
—	—	—	—	2,491,836	3,090,383	2,880,651	2,434,882	28
775	230	—	—	1,486,609	1,423,679	1,842,161	1,717,675	29
17,470	16,711	15,182	30,733	3,996,967	4,552,945	4,756,499	4,195,849	30
2,755	—	—	—	271,086	42,003	76,234	10,086	31
—	—	—	—	63	38,572	103	75,969	32
—	—	—	—	16,000	6,056	3,904	2,676	33
—	—	—	—	125,925	103,247	167,124	127,947	34
14,452	11,481	6,608	5,712	430,775	375,219	259,156	278,121	35
259,310,936	331,203,428	219,231,190	214,015,711	69,384,889	96,881,762	107,477,497	178,700,501	36
—	—	—	—	1,319,508	1,162,288	1,528,618	1,776,864	37
—	—	—	—	1,297,422	1,314,597	1,638,142	1,951,738	38
271,568	138,782	55,190	102,764	3,224,794	3,591,882	3,708,215	4,891,567	39
550,261	418,489	377,611	639,527	23,254,341	28,412,037	33,521,556	44,207,395	40
—	—	—	—	3,050	1,239	2,852	2	41
—	—	—	—	15,653	3,389	3,564	52	42
550,261	418,489	377,611	639,527	24,567,416	29,730,023	35,163,262	46,159,185	43
21,977	26,985	17,078	43,504	22,554	19,457	18,502	15,400	44
—	—	—	228,480	221,045	180,273	498,769	576,547	45
—	—	—	861,079	756,383	573,789	1,669,839	1,860,357	46
1,872,207	—	—	—	1,820,950	320,894	461,317	493,884	47
29,648	33,604	22,423	14,624	73,066	106,199	89,174	104,156	48
1,500,888	882,655	418,271	1,884,770	10,211,707	11,919,810	4,376,316	6,646,934	49

14.—Principal Exports of Canadian Produce from Canada to All Countries.

No.	Item	All Countries			
		1948	1949	1950	1951
I. Agricultural and Vegetable Products—concluded					
B. OTHER THAN FOOD—concluded					
1	Seed potatoes..... bu.	5,343,936	8,119,881	4,894,177	3,837,545
2	Seeds, <i>n.o.p.</i> \$	7,439,947	9,516,915	5,237,405	4,086,204
3	Tobacco, unmanufactured..... lb.	42,308,039	34,251,982	25,474,285	23,829,089
4	Tobacco, manufactured..... \$	15,877,694	15,724,207	22,508,262	29,180,473
5	Other vegetable products, not food..... \$	8,099,400	8,616,833	10,551,660	16,413,373
		292,711	268,442	90,959	206,746
	TOTALS, B. OTHER THAN FOOD..... \$	10,942,582	9,906,908	12,945,864	16,121,251
	TOTALS, Agricultural and Vegetable Products..... \$	147,856,461	136,594,774	116,390,882	153,921,522
	TOTALS, Agricultural and Vegetable Products..... \$	643,697,863	773,006,888	636,897,823	894,209,730
II. Animals and Animal Products					
Animals, Living—					
6	Cattle, swine, sheep and poultry, pure bred for improvement of stock..... \$	12,046,251	6,661,879	7,834,215	8,345,138
7	Cattle, <i>n.o.p.</i> No.	411,291	398,992	435,239	219,563
8	Horses..... No.	62,173,640	55,051,146	71,651,067	55,027,616
9	Other animals, living..... \$	21,599	12,989	26,858	11,072
		1,316,612	614,539	1,002,325	557,329
	TOTALS, Animals, Living..... \$	11,968,407	6,551,527	4,084,523	1,348,166
	TOTALS, Animals, Living..... \$	87,504,910	68,879,091	84,572,130	65,278,249
10	Bones, horns, etc..... \$	496,374	473,145	352,989	367,154
Fishery Products, <i>n.o.p.</i> —					
11	Fish, fresh or frozen..... cwt.	2,354,779	2,302,588	2,947,048	2,815,073
12	Fish, salted, dried, pickled and smoked... cwt.	45,246,151	45,771,989	62,411,981	66,274,959
13	Fish, canned or preserved, <i>n.o.p.</i> cwt.	1,083,870	1,615,729	2,083,745	2,100,536
14	Other fishery products, <i>n.o.p.</i> \$	14,864,254	23,712,039	28,628,118	27,607,811
		898,620	638,296	477,168	478,504
		21,044,204	17,397,489	15,248,687	16,192,679
	TOTALS, Fishery Products, <i>n.o.p.</i> \$	3,872,940	6,867,813	6,429,049	7,388,996
	TOTALS, Fishery Products, <i>n.o.p.</i> \$	85,027,549	93,749,330	112,717,835	117,464,445
15	Furs and manufactures of..... \$	24,117,782	23,326,656	25,298,256	29,864,201
16	Hair and bristles and manufactures of..... \$	1,488,808	1,395,555	1,318,813	2,424,048
17	Hides and skins, raw (except fur skins)..... No.	573,626	2,204,089	2,149,127	1,609,314
18	Leather, unmanufactured..... \$	11,965,611	14,357,607	14,409,710	13,791,138
19	Leather, manufactured..... \$	9,241,219	4,717,631	6,035,152	7,014,585
20	Bacon and hams, shoulders and sides..... cwt.	3,777,731	2,511,962	1,912,636	2,151,633
21	Other meats and preparations of..... \$	2,407,307	670,866	785,267	61,325
		69,960,452	24,175,917	28,306,976	3,649,744
	TOTALS, Milk and Its Products—	63,398,537	43,943,952	46,211,060	68,812,411
22	Butter..... cwt.	8,822	10,688	16,291	5,437
23	Cheese..... cwt.	625,212	613,751	943,042	387,404
24	Milk, processed..... cwt.	398,274	526,948	631,096	306,532
25	Other milk products..... \$	12,042,200	16,256,818	16,551,508	10,231,725
		902,528	719,686	557,644	410,406
		15,190,473	11,208,638	9,171,452	9,011,843
	TOTALS, Milk and Its Products..... \$	2,515,497	2,022,070	915,808	1,867,632
	TOTALS, Milk and Its Products..... \$	30,373,382	30,101,277	27,581,810	21,498,604
26	Oils, fats, greases and waxes..... \$	4,944,189	6,043,967	5,455,367	6,522,462
27	Other animal products..... \$	42,627,958	24,745,391	11,602,304	9,194,796
	TOTALS, Animals and Animal Products.. \$	434,924,502	338,421,481	365,775,038	348,033,470

1 Cwt.

the United Kingdom and the United States, 1948-51—continued

United Kingdom				United States				No.
1948	1949	1950	1951	1948	1949	1950	1951	
—	—	—	—	4,331,707	7,095,530	3,881,329	3,061,810	1
—	—	—	—	5,601,567	7,833,277	3,966,402	3,003,288	
2,159,154	978,676	254,470	320,124	18,490,894	14,969,169	11,961,110	11,734,055	2
12,487,642	13,042,764	15,766,400	23,223,062	9,320	66,424	122	135	3
6,330,102	7,346,911	8,320,337	13,491,339	3,750	11,064	196	113	
70	751	17	308	8,191	9,451	49,691	43,896	4
147,298	88,559	153,827	313,788	8,381,078	8,262,564	11,703,607	14,680,791	5
12,611,605	9,776,630	9,564,034	17,569,063	69,937,556	73,755,697	69,459,416	84,742,059	
271,922,541	340,980,058	223,795,224	231,584,774	139,322,445	170,637,459	176,936,913	263,442,560	
—	—	—	—	—	—	—	—	
216,592	—	145	250	11,155,840	6,198,637	7,322,754	7,975,275	6
—	—	—	—	406,228	396,764	433,992	218,607	7
—	—	—	—	61,563,904	54,738,442	71,516,369	54,873,719	
—	9	4	—	13,570	12,420	26,788	10,964	8
—	7,480	2,800	—	621,218	661,660	990,873	544,408	
8,747	18,907	3,640	2,726	11,784,814	6,479,710	4,036,778	1,300,593	9
225,339	26,387	6,585	2,976	85,125,776	67,978,449	83,866,774	64,693,995	
—	—	—	15,400	486,404	463,316	350,880	351,502	10
—	—	—	—	2,344,526	2,287,563	2,941,058	2,804,321	11
—	—	—	—	44,973,446	45,535,116	62,251,984	65,969,421	
—	—	—	—	391,204	434,456	481,782	476,334	12
—	—	—	—	6,049,542	6,709,394	6,884,616	6,700,901	
49,794	232,109	127,794	169,643	57,044	57,404	39,650	32,573	13
1,810,879	7,321,057	4,891,776	7,043,534	3,082,445	2,841,466	2,944,225	2,126,404	
1,014	85,907	86,325	128,290	3,592,309	6,486,973	6,152,805	7,066,840	14
1,811,893	7,406,964	4,978,101	7,171,824	57,697,742	61,572,949	78,199,630	81,863,566	
7,965,968	4,875,557	4,009,635	7,325,579	15,615,058	18,078,008	20,807,744	21,834,659	15
196,022	422,086	338,409	1,018,317	1,082,761	758,848	794,887	1,291,866	16
6,197 ¹	125,481	156,150	188,062	521,064 ¹	1,281,007	1,659,415	1,354,170	17
179,655	1,061,280	1,109,158	1,291,814	10,716,594	5,117,778	9,231,712	11,820,419	
1,242,151	738,281	858,331	1,254,006	3,882,290	1,650,977	3,134,683	3,819,979	18
598,740	378,153	91,460	117,711	944,101	1,345,740	1,631,947	1,606,386	19
2,001,380	655,771	723,403	18,915	82	49	52,817	34,997	20
67,844,812	23,380,987	24,400,029	629,559	2,497	2,238	3,406,398	2,567,150	
9,515,700	17,182	904	447,349	33,701,542	33,564,673	40,686,259	63,900,286	21
—	10	—	—	59	426	417	1,465	22
—	635	—	—	3,661	32,198	27,494	112,706	
373,813	501,224	592,398	271,517	1,123	18,685	30,231	27,257	23
11,085,099	15,230,308	15,072,739	8,718,302	47,796	765,206	1,187,400	1,188,436	
8,947	29	—	54,639	51,611	62,537	31,070	3,866	24
111,862	446	—	712,552	678,876	763,594	330,625	44,451	
2,233	—	—	—	869,633	467,719	344,058	493,864	25
11,199,194	15,231,389	15,072,739	9,430,854	1,599,966	2,028,717	1,889,577	1,839,457	
18,964	675,547	59,963	939,462	4,100,734	3,314,233	2,328,663	2,759,893	26
37,319,309	18,207,791	2,420,866	215,112	2,985,298	4,690,552	7,003,717	7,178,538	27
138,117,777	72,421,604	53,316,185	29,859,963	217,940,763	200,566,478	253,332,871	265,527,696	

¹ Cwt.

14.—Principal Exports of Canadian Produce from Canada to All Countries.

No.	Item	All Countries			
		1948	1949	1950	1951
III. Fibres and Textiles					
1	Cotton and manufactures of..... \$	10,232,951	5,168,937	7,151,961	10,960,752
2	Flax, hemp, jute and manufactures of..... \$	1,882,284	1,795,673	2,004,574	1,234,434
3	Silk and manufactures of..... \$	72,696	3,631	6,763	763
4	Wool, raw (includes noils and tops)..... lb.	3,968,794	3,425,603	3,756,947	2,326,790
		2,075,809	1,654,635	2,480,077	2,201,134
5	Other wool and manufactures of..... \$	10,015,109	3,740,157	3,817,812	5,295,801
6	Synthetic fibre and manufactures of..... \$	7,170,663	2,223,357	5,118,279	4,267,695
7	Other textile products..... \$	14,104,397	10,630,932	8,993,984	12,897,765
	Totals, Fibres and Textiles..... \$	45,553,909	25,217,322	29,573,450	36,858,344
IV. Wood, Wood Products and Paper					
8	Logs..... M ft.	80,970	66,864	57,029	43,063
		4,668,611	3,921,015	4,308,117	4,707,423
9	Railroad ties..... No.	2,810,778	1,548,149	451,139	168,478
		7,258,390	3,812,020	1,322,244	480,609
10	Planks and boards..... M ft.	2,459,817	2,180,697	3,575,322	3,435,510
		196,023,439	160,420,017	290,846,700	312,198,092
11	Timber, square..... M ft.	7,923	8,772	3,330	3,868
		551,867	623,052	274,390	424,919
12	Shingles..... squares	2,352,953	2,151,906	2,923,892	2,588,360
		22,370,319	16,802,733	32,400,879	27,482,820
13	Pulpwood..... \$	43,572,868	31,316,592	34,767,878	68,102,942
14	Spoolwood..... M ft.	16,755	14,733	17,640	12,017
		2,037,419	1,805,071	2,132,878	1,604,071
15	Wood-pulp..... cwt.	35,959,964	30,974,122	36,922,864	44,866,161
		211,564,384	170,675,310	208,555,549	365,132,884
16	Pulp board, wall board and paper board..... cwt.	1,709,170	1,832,859	1,640,549	2,281,317
		13,519,607	8,978,691	7,955,430	14,062,016
17	Book paper..... cwt.	737,636	269,292	345,223	548,769
		5,840,550	2,173,880	2,755,746	5,283,533
18	Newsprint..... cwt.	86,661,671	94,093,031	98,761,380	102,241,224
		383,122,743	433,881,585	485,746,314	536,372,498
19	Wrapping paper..... cwt.	431,852	269,499	194,606	333,011
		3,610,298	2,326,193	1,515,159	3,728,972
20	Newsprint, mutilated, or beater stock, and waste paper..... cwt.	971,921	666,949	1,282,991	1,423,477
		3,031,226	1,525,429	3,529,075	6,278,987
21	Other wood products and paper..... \$	56,501,806	37,056,092	36,834,702	53,216,365
	Totals, Wood, Wood Products and Paper \$	953,673,527	875,317,680	1,112,945,061	1,399,076,131
V. Iron and Its Products					
22	Iron ore..... ton	1,070,277	2,550,299	2,227,475	3,225,767
		5,300,742	14,117,171	13,309,782	18,596,137
23	Ferro-alloys..... ton	167,375	127,308	122,479	190,454
		24,056,638	19,182,460	17,075,226	31,347,284
24	Pigs, ingots, blooms and billets..... ton	36,435	80,661	364,988	262,673
		2,690,845	4,956,710	21,330,625	14,433,432
25	Scrap iron or steel..... ton	5,214	39,975	62,618	39,804
		186,640	1,009,203	2,034,221	1,615,678
26	Castings and forgings..... cwt	185,263	173,216	310,911	504,868
		2,093,639	2,167,486	3,413,917	6,291,097
27	Rolling-mill products..... ton	233,111	142,441	59,363	45,739
		23,773,298	15,547,856	7,120,615	11,805,614
28	Tubes, pipes and fittings..... \$	1,953,290	5,384,926	2,016,177	1,978,360
29	Wire..... \$	593,900	649,812	845,611	764,006
30	Chains..... \$	251,914	159,480	122,821	298,991
31	Engines, boilers and parts..... \$	12,204,439	31,393,884	14,986,267	9,844,185
32	Farm implements and machinery..... \$	73,760,071	92,527,276	87,811,385	106,438,161
33	Hardware and cutlery..... \$	5,316,125	4,511,557	4,500,031	5,160,128
34	Machinery (except agricultural)..... \$	40,538,974	31,840,388	25,644,253	40,270,782
35	Stamped and coated products..... \$	592,200	146,653	128,586	1,007,879
36	Tools..... \$	3,101,658	1,589,430	972,298	1,255,073
VI. Vehicles and Parts					
37	Automobiles, freight..... No.	20,901	12,147	10,249	23,308
		18,840,966	12,167,742	8,827,198	24,872,620
38	Automobiles, passenger..... No.	27,277	17,469	24,085	37,181
		20,905,084	15,887,688	19,364,912	38,490,266
39	Automobile parts..... \$	15,339,688	10,752,295	12,036,038	15,763,431
40	Vehicles, n.o.p..... \$	21,258,790	23,263,970	5,213,115	3,136,382
	Totals, Vehicles and Parts..... \$	76,344,528	62,071,695	45,441,263	82,262,699
41	Other iron and steel products..... \$	8,705,745	5,608,236	4,355,460	8,929,197
	Totals, Iron and Its Products..... \$	281,464,706	292,864,223	251,108,538	342,298,703

the United Kingdom and the United States, 1948-51—continued

United Kingdom				United States				No.
1948	1949	1950	1951	1948	1949	1950	1951	
950,721	225,618	144,257	572,153	695,408	506,754	1,421,958	1,708,304	1
251,976	310,837	277,763	87,247	1,512,892	1,400,281	1,623,122	1,054,114	2
—	—	—	—	1,774	3,631	5,990	138	3
1,081,403	1,261,821	794,716	271,621	2,762,848	1,997,046	2,880,314	2,036,751	4
492,611	580,897	453,681	267,127	1,447,354	927,379	1,940,525	1,924,194	5
22,215	28,891	4,315	5,527	5,782,287	2,448,710	3,133,140	3,090,686	6
96,858	113,249	58,676	131,771	1,619,199	636,090	3,391,448	2,233,100	7
76,764	147,041	200,034	201,034	5,975,803	5,167,529	6,826,803	9,577,955	8
1,891,145	1,406,533	1,138,726	1,264,859	17,034,717	11,180,374	18,342,986	19,588,473	
8,571	10,457	5,245	4,932	68,740	51,956	49,120	35,030	9
723,222	869,093	433,277	585,238	3,611,252	2,648,049	3,639,353	3,815,306	10
1,189,463	1,203,361	27,987	61,345	64,219	59,247	38,477	25,415	11
3,297,160	2,907,442	59,480	168,520	100,318	87,695	54,335	35,754	12
562,047	475,220	275,425	895,238	1,612,691	1,399,277	3,022,169	2,167,358	13
43,888,185	37,400,100	20,353,111	78,964,272	127,947,843	100,146,138	249,599,076	196,780,626	14
3,606	2,048	693	1,001	2,532	4,742	1,747	653	15
256,950	229,860	78,984	141,464	157,312	243,845	114,172	49,662	16
..	..	28,704	38,050	2,222,158	2,079,151	2,842,467	2,477,396	17
279,438	712,860	767,503	3,229,904	42,237,021	30,592,706	33,963,132	59,330,714	18
8,223	10,438	12,875	7,085	5,966	2,969	4,166	3,875	19
958,461	1,270,872	1,581,248	931,012	655,797	337,607	461,570	464,942	20
3,411,919	3,474,901	2,358,402	4,345,017	31,813,489	26,095,488	33,888,883	36,628,212	21
21,369,417	19,337,925	13,128,894	37,770,627	184,972,898	141,612,317	191,005,507	276,760,578	22
719,492	322,797	28,689	285,032	1,368,895	1,295,621	1,389,975	1,623,995	23
4,266,227	1,578,568	203,849	2,406,975	5,372,777	5,602,918	6,357,938	8,633,986	24
3,247	52	—	154	501,476	164,232	298,451	430,739	25
46,604	841	—	1,826	3,018,274	1,046,498	2,162,123	3,427,448	26
1,213,799	1,948,408	381,903	1,444,094	78,347,320	85,723,058	94,498,732	95,498,938	27
5,319,660	8,850,012	1,861,980	7,488,167	340,334,045	391,305,728	463,155,927	496,852,197	28
109,006	18,001	24,801	76,817	63,910	26,643	43,452	82,528	29
548,199	167,749	195,362	864,501	663,272	127,528	289,450	851,600	30
..	9,914	—	68,417	971,268	656,792	1,282,959	1,333,531	31
19,688,628	40,154	..	319,388	3,029,380	1,484,556	3,528,977	5,825,120	32
100,642,151	11,404,531	1,787,604	7,851,267	21,750,432	18,390,541	30,444,835	35,542,151	33
100,642,151	84,770,307	40,686,608	141,180,763	754,937,316	709,840,582	1,016,395,752	1,114,581,439	
—	779,092	142,588	775,832	1,070,277	1,771,207	2,031,646	2,184,708	34
—	3,658,101	707,013	3,796,025	5,300,742	10,459,070	12,329,032	13,121,180	35
63,912	67,405	44,894	52,057	95,635	52,573	72,935	132,569	36
9,970,109	10,182,762	5,236,921	8,772,649	12,481,345	7,104,030	11,073,470	21,659,692	37
17,683	3,115	—	52	16,070	77,434	364,476	262,215	38
1,746,773	389,688	—	134,160	621,473	4,543,034	21,302,200	14,267,405	39
—	—	—	—	5,214	39,975	62,618	39,804	40
—	—	—	—	186,640	1,009,203	2,034,221	1,615,678	41
344	..	—	—	180,881	172,065	309,986	502,644	42
3,476	..	—	—	2,010,840	2,139,951	3,393,165	6,223,703	43
5,898	1,135	147	1,158	13,344	38,747	27,833	16,518	44
1,748,068	519,047	81,799	2,331,424	1,115,163	3,839,287	2,836,621	2,582,323	45
6,199	1,200	1,340	27,474	155,985	34,327	89,870	579,210	46
22,642	5,331	32,468	32,658	51,230	246,970	647,208	284,287	47
12,895	7,223	29,465	1,607	40,551	32,219	70,312	279,715	48
617,537	753,148	662,995	678,150	308,775	329,804	646,035	3,095,375	49
3,836,968	4,073,095	852,613	571,611	50,575,122	70,213,783	70,660,697	83,495,253	50
1,049,750	1,350,219	1,581,564	1,523,514	991,164	417,137	293,164	676,547	51
2,129,584	851,387	536,751	987,173	5,781,718	5,798,165	7,350,089	12,445,398	52
190	—	46	—	19,091	5,302	31,994	77,059	53
338,628	137,853	3,306	53,674	247,423	245,396	175,909	263,294	54
—	—	—	—	..	3	—	9,734	55
—	—	—	—	..	5,863	—	9	56
37	24	124	228	9	4	10	16,278	57
47,867	36,998	180,490	332,603	16,685	6,637	18,368	2,793,824	58
260,127	39,281	34,487	26,791	1,793,785	925,218	854,276	1,751,478	59
1,997	721	3,789	7,169	10,161,112	930,111	1,883,383	—	60
309,991	77,000	218,766	366,563	11,971,582	1,867,829	2,756,027	4,571,314	61
116,766	99,283	154,458	637,213	359,701	449,669	754,436	3,950,345	62
21,909,576	22,106,337	10,099,505	19,913,895	92,218,545	108,735,176	136,445,450	169,187,778	

14.—Principal Exports of Canadian Produce from Canada to All Countries,

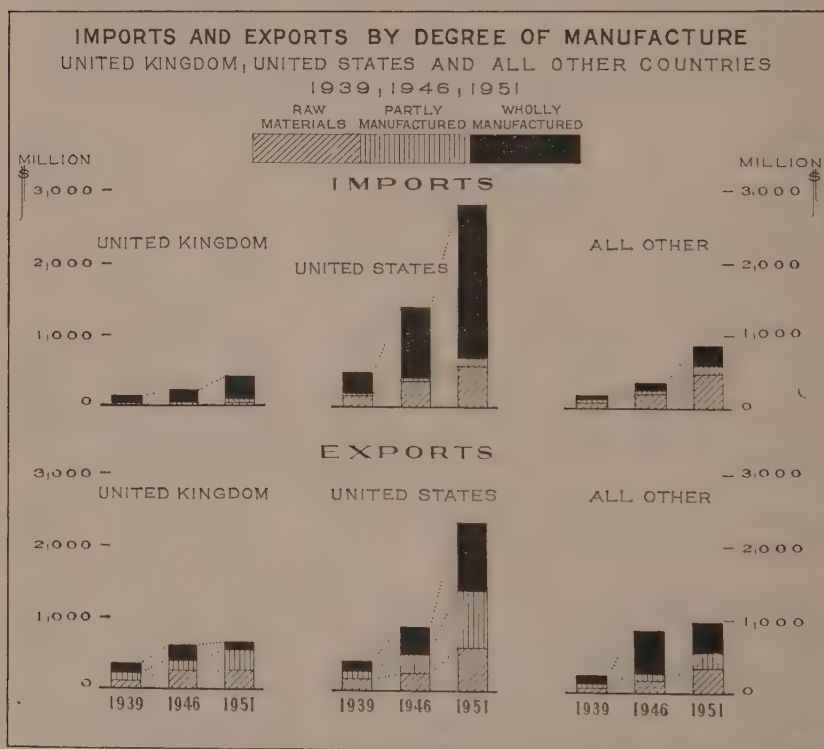
No.	Item	All Countries			
		1948	1949	1950	1951
VI. Non-Ferrous Metals					
1	Aluminum and manufactures of.....	\$ 102,046,428	93,997,544	106,867,384	124,779,435
2	Brass and manufactures of.....	\$ 4,676,723	4,279,330	3,361,514	5,660,419
3	Copper and manufactures of.....	\$ 79,035,584	86,623,361	87,587,076	87,188,071
4	Lead and manufactures of.....	\$ 34,683,751	42,187,036	38,198,933	45,392,480
5	Nickel..... cwt.	\$ 2,636,797	2,542,835	2,433,023	2,623,656
		\$ 73,801,871	92,323,686	105,299,743	136,689,457
6	Precious metals and manufactures of (except gold).....	\$ 25,477,574	27,917,946	33,567,611	48,523,961
7	Zinc and manufactures of.....	\$ 42,496,481	55,861,872	58,893,117	84,450,009
8	Clocks and watches and parts.....	\$ 1,179,021	723,709	352,877	1,064,249
9	Electrical apparatus, <i>n.o.p.</i>	\$ 16,822,314	12,293,101	11,088,618	17,729,307
10	Printing materials.....	\$ 82,133	51,848	33,975	39,279
11	Other non-ferrous metals, including "Alloys, <i>n.o.p.</i> ".....	\$ 15,646,331	10,348,177	12,011,458	18,353,526
	Totals, Non-Ferrous Metals.....	\$ 395,948,211	426,607,610	457,262,306	569,870,193
VII. Non-Metallic Minerals					
12	Asbestos and manufactures of.....	\$ 41,979,215	37,298,349	63,474,897	81,830,822
13	Clay and manufactures of.....	\$ 1,508,132	1,729,272	2,201,272	2,537,880
Coal and Its Products—					
14	Coal..... ton	1,273,262	432,043	394,961	435,083
		\$ 11,555,985	3,563,892	3,198,040	3,495,664
15	Coke..... ton	199,825	294,753	413,343	219,340
		\$ 3,068,176	4,733,745	6,321,205	3,962,267
16	Creosote and coal-tar oils, <i>n.o.p.</i> gal.	3,949,336	4,169,318	3,145,898	2,369,760
		\$ 902,179	1,049,701	778,182	858,933
17	Other coal products.....	\$ 19,650	1,328	1,363	71,883
	Totals, Coal and Its Products.....	\$ 15,545,990	9,348,666	10,298,790	8,388,747
18	Glass and manufactures of.....	\$ 1,206,524	821,373	932,269	970,031
19	Graphite, crude or refined..... cwt.	\$ 40,283	33,010	60,870	23,032
		\$ 191,398	166,224	313,457	156,536
20	Mica and manufactures of.....	\$ 150,361	63,592	166,641	484,768
21	Petroleum and products.....	\$ 9,303,914	2,588,255	299,173	2,038,384
22	Stone and its products.....	\$ 20,020,505	17,251,922	21,612,350	29,097,164
23	Other non-metallic minerals.....	\$ 5,008,509	4,442,556	4,355,911	6,025,114
	Totals, Non-Metallic Minerals.....	\$ 94,914,548	73,710,209	103,654,760	131,529,446
VIII. Chemicals and Allied Products					
24	Acids..... cwt.	1,233,076	651,078	1,347,042	1,871,420
		\$ 5,727,794	2,738,609	3,523,635	5,823,003
25	Alcohols, industrial.....	\$ 25,014	337,059	119,126	31,341
26	Cellulose products.....	\$ 320,223	84,587	183,232	1,437,804
27	Drugs, medicinal and pharmaceutical preparations.....	\$ 3,200,398	3,885,464	4,297,654	6,036,553
28	Explosives.....	\$ 379,131	13,378	769,125	1,249,183
29	Fertilizers..... cwt.	13,842,787	14,113,469	14,831,896	12,452,669
		\$ 36,374,435	39,385,031	38,873,834	35,733,727
30	Paints, pigments and varnishes.....	\$ 6,234,618	3,604,058	4,025,051	7,998,501
31	Perfumery, cosmetics and toilet preparations.....	\$ 234,072	1,03,823	76,499	115,196
32	Soap..... lb.	3,168,542	1,802,059	168,566	219,421
		\$ 780,870	327,962	19,558	44,745
33	Inorganic chemicals, <i>n.o.p.</i>	\$ 10,048,906	7,171,321	7,726,038	13,862,104
34	Other chemicals and allied products.....	\$ 16,514,900	13,046,645	40,911,730	59,357,572
	Totals, Chemicals and Allied Products.....	\$ 79,840,361	70,697,937	100,525,482	131,689,729
IX. Miscellaneous Commodities					
35	Amusement and sporting goods, <i>n.o.p.</i>	\$ 1,886,124	576,996	469,087	611,361
36	Brushes.....	\$ 400,271	275,270	219,280	231,870
37	Containers, <i>n.o.p.</i>	\$ 3,149,917	2,072,749	1,873,876	3,188,209
38	Household and personal equipment, <i>n.o.p.</i>	\$ 5,857,195	3,966,192	2,717,691	4,531,937
39	Mineral and aerated waters.....	\$ 9,308	4,625	20,745	8,081
40	Musical instruments.....	\$ 428,527	377,587	373,526	697,672
41	Scientific and educational equipment.....	\$ 4,746,283	3,209,690	2,645,730	5,520,440
42	Ships and vessels and materials for ships.....	\$ 84,264,575	42,458,261	22,847,268	8,773,962
43	Vehicles (except iron).....	\$ 11,673,916	25,384,837	4,846,058	7,928,199
44	Works of art.....	\$ 42,076	46,043	38,963	66,149
45	Other miscellaneous commodities.....	\$ 32,962,266	38,745,078	24,591,869	29,336,750
	Totals, Miscellaneous Commodities.....	\$ 145,420,458	117,117,628	60,644,093	60,894,630
	Grand Totals, Exports.....	\$ 3,075,438,085	2,992,960,978	3,118,386,551	3,914,460,376

the United Kingdom and the United States, 1948-51—concluded

United Kingdom				United States				No.
1948	1949	1950	1951	1948	1949	1950	1951	
39,917,734	48,731,490	39,224,584	57,230,082	25,874,738	21,632,877	49,532,763	40,976,605	1
405,954	298,050	263,662	945,878	1,235,804	598,854	2,285,647	2,183,592	2
34,801,746	32,274,543	29,275,343	28,588,864	17,763,112	37,347,965	41,940,025	31,116,178	3
14,535,514	14,458,125	2,157,474	12,246,268	18,157,509	20,974,490	30,699,705	24,012,520	4
511,106	566,309	432,587	626,842	1,928,652	1,730,508	1,770,850	1,767,873	5
12,626,831	20,545,673	18,997,379	32,323,665	56,318,271	62,693,150	76,184,024	92,415,560	
11,276,570	12,280,400	11,841,426	15,488,835	13,795,573	15,201,213	20,946,111	31,965,425	6
12,623,151	15,403,634	12,537,326	27,830,564	25,766,437	35,187,175	39,039,988	45,586,330	7
106,991	16,611	24,515	51,587	59,595	18,720	15,228	125,669	8
318,338	229,800	32,770	195,013	583,847	1,210,362	2,683,428	3,497,388	9
2,803	434	8,051	3,368	72,957	48,797	22,984	34,358	10
5,250,845	3,653,473	3,038,148	6,730,651	6,918,333	1,978,217	3,693,283	6,095,036	11
131,866,477	147,892,233	117,400,678	181,634,775	166,546,176	196,891,820	267,043,186	278,008,661	
3,261,431	2,765,524	4,761,368	6,371,968	32,093,848	28,220,201	44,571,911	54,800,442	12
1,054	233	—	2,700	339,655	380,681	526,850	1,003,595	13
—	—	—	11,297	324,109	319,360	347,849	292,497	14
—	—	—	108,451	2,228,414	2,507,402	2,722,308	2,158,906	15
1,100	4,292	8,883	11,315	189,989	290,399	395,665	197,661	16
50,322	190,448	397,550	449,329	2,882,148	4,542,429	5,535,752	3,120,931	17
—	—	—	—	3,489,019	4,168,818	3,145,493	2,369,760	18
—	—	—	—	796,324	1,049,441	777,919	558,933	19
—	—	—	—	3,129	200	1,232	71,638	20
50,322	190,448	397,550	557,780	5,910,015	8,099,472	9,037,211	6,210,408	21
5,391	1,450	42	383	60,943	49,950	320,898	270,444	22
—	—	—	—	39,581	32,607	60,637	22,966	23
—	—	—	—	184,891	162,655	311,508	155,769	24
—	—	—	—	148,629	61,913	165,592	435,041	25
929,758	4,777	193	907,267	1,236,530	976,575	73,519	851,357	26
2,219,131	3,006,018	3,504,469	4,428,128	15,955,743	12,807,392	16,714,275	23,263,608	27
1,216,166	1,602,293	863,214	804,332	1,532,197	1,489,932	2,261,190	2,935,012	28
7,683,253	7,570,743	9,526,836	13,072,558	57,462,451	52,248,771	73,982,954	89,925,676	29
333,023	138,573	90,112	106,194	822,875	480,459	1,234,094	1,715,990	30
3,002,599	1,393,207	890,441	1,182,695	1,865,819	907,705	2,378,180	4,032,478	31
9,992	323,655	14,263	6,969	2,480	778	70,953	18,016	32
—	—	7,443	43,951	14,542	7,853	48,896	213,430	33
102,315	29,433	32,554	39,082	66,924	245,846	209,523	220,134	34
—	—	—	235,295	1,101	2,180	354,643	36,856	35
—	—	—	—	8,085,290	8,741,503	10,943,891	10,724,633	36
—	—	—	—	20,497,577	23,416,056	28,595,218	30,800,905	37
267,293	354,365	329,798	785,791	1,912,000	1,316,012	2,813,316	3,737,026	38
3,601	4,356	942	7,735	5,640	4,378	36,912	10,013	39
21,600	—	—	—	8,924	8,126	10,942	7,350	40
2,160	—	—	—	1,937	2,214	1,066	1,318	41
1,197,822	751,530	569,075	1,174,420	4,146,583	3,430,996	4,920,977	8,336,226	42
7,277,856	2,689,923	4,148,579	6,894,513	5,053,775	4,024,797	19,069,140	19,846,714	43
7,313,638	5,546,469	5,993,095	10,370,451	33,568,378	33,358,815	58,498,824	67,253,116	44
85,688	72,676	67,503	117,146	241,584	205,927	189,322	192,611	45
1,612	—	32	46	38,037	10,381	14,225	10,701	46
60,552	87,984	85,290	100,101	395,465	378,156	464,008	463,304	47
250,472	155,415	109,894	229,465	272,466	135,549	152,801	250,092	48
—	—	—	—	178	468	1,544	102	49
2,503	—	—	—	224,030	307,164	283,183	645,095	50
366,535	341,422	306,501	619,982	725,995	1,025,776	697,464	2,126,441	51
25,918	14,124	30,986	3,565	973,641	549,906	485,738	656,242	52
955,641	18,683,188	296,041	161,670	4,529,408	3,219,973	2,527,437	5,943,677	53
—	1,868	110	—	36,359	44,142	38,523	65,422	54
3,818,798	2,904,765	2,026,797	1,346,941	14,518,767	14,121,794	15,154,449	19,805,506	55
5,567,719	22,261,442	2,923,154	2,578,916	21,955,930	19,999,236	20,008,694	30,159,195	
686,914,277	704,955,726	469,910,011	631,460,954	1,500,986,721	1,503,458,711	2,020,987,630	2,297,674,594	

Section 5.—Imports and Exports by Degree of Manufacture, by Origin and by Purpose

Analyses of Canada's trade, from the angle of degree of manufacture of imports and exports with leading countries, are of value to the student of economic relationships because they present, in summary form, details with significant meaning in the complementary relationship of manufacturing and commerce between continents and countries.



The data of Tables 15 and 16 have been specially tabulated to show this information for all countries of any importance that trade with Canada. Table 17, on the other hand, gives historical statistics that indicate clearly the fluctuations in imports for home consumption of important raw materials used in Canadian manufacture, irrespective of their source. In a broad way, the data reflect the development of Canadian manufactures, although the industrial expansion for the purposes of war must be borne in mind in using the figures for the past decade.

15.—Imports according to Degree of Manufacture, by Countries and Continents, 1950 and 1951

Country	1950			1951		
	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Commonwealth Countries						
United Kingdom.....	14,554	58,326	331,334	13,993	63,969	343,022
Aden.....	12	—	22	—	—	—
Africa, British East.....	3,720	9,590	1,756	6,724	2,789	1,351
Southern Rhodesia.....	392	—	9	1,456	2	38
Northern Rhodesia.....	50	—	1	9	—	—
Union of South Africa.....	1,908	715	2,341	2,291	1,288	1,792
Gold Coast.....	8,866	122	11	6,960	151	1
Nigeria.....	1,479	5	1	865	32	2
Sierra Leone.....	294	—	—	49	—	—
Anglo-Egyptian Sudan.....	—	53	—	—	58	—
India.....	6,584	885	29,792	5,107	4,561	30,549
Pakistan.....	567	881	258	80	1,689	464
Ceylon.....	3,185	2,229	12,190	6,025	1,726	8,646
Federation of Malaya.....	23,272	5,066	515	48,448	9,159	374
Other British East Indies.....	46	1	—	4,623	—	—
Bermuda.....	4	29	54	8	16	57
British Guiana.....	7,092	13,659	984	9,420	14,833	772
British Honduras.....	224	140	81	294	97	67
Barbados.....	—	7,276	2,781	—	10,254	3,155
Jamaica.....	1,103	16,388	1,589	947	14,590	2,590
Trinidad and Tobago.....	5,786	7,664	1,756	6,380	8,159	543
Bahamas.....	235	—	298	184	—	162
Leeward and Windward Islands.....	205	13	177	176	702	79
Gibraltar.....	—	2	2	—	—	—
Hong Kong.....	259	67	1,876	711	18	2,272
Malta.....	1	—	19	—	—	47
Australia.....	11,326	12,705	8,772	20,310	16,012	9,906
Fiji.....	1	10,132	62	1	5,944	47
New Zealand.....	8,424	1,821	1,611	21,424	3,361	5,322
Totals, Commonwealth Countries	99,587	147,767	398,270	156,506	159,411	411,172
Foreign Countries						
Afghanistan.....	109	—	—	51	—	—
Arabia.....	28,114	—	2	22,661	—	8
Argentina.....	4,184	902	5,826	2,108	1,777	10,069
Austria.....	—	—	964	—	211	2,980
Belgium and Luxembourg.....	663	3,688	18,444	567	3,426	35,102
Belgian Congo.....	157	1,282	42	90	2,014	948
Bolivia.....	2,408	—	34	1,791	20	37
Brazil.....	23,007	146	5,025	34,481	1,548	4,598
Bulgaria.....	—	—	4	—	—	4
Burma.....	—	—	—	—	—	—
Chile.....	1,258	19	75	2,033	44	77
China.....	2,753	30	2,515	376	12	1,542
Colombia.....	13,038	—	305	13,023	—	40
Costa Rica.....	3,378	—	—	8,785	—	—
Cuba.....	1,922	432	1,780	2,264	3,543	2,526
Czechoslovakia.....	54	16	5,966	98	17	4,553
Denmark.....	680	12	714	830	6	2,895
Dominican Republic.....	553	414	213	550	552	24
Ecuador.....	1,419	11	43	2,401	7	30
Egypt.....	611	6	42	550	10	152
El Salvador.....	847	—	—	1,027	153	2
Estonia.....	—	—	30	—	—	116
Ethiopia.....	30	—	1	29	—	3
Finland.....	182	—	35	35	2	121
France.....	535	1,416	12,717	1,160	802	22,012
French Africa.....	68	433	42	311	15	73
French Oceania.....	54	420	3	360	—	—
Madagascar.....	8	—	—	29	—	—
St. Pierre and Miquelon.....	3	2	12	2	—	23
Germany.....	196	1,153	9,677	211	1,158	29,567
Greece.....	73	72	57	58	50	66
Guatemala.....	5,765	14	2	4,592	12	15
Haiti.....	1,753	3	13	2,996	2	22

**15.—Imports according to Degree of Manufacture, by Countries and Continents,
1950 and 1951—concluded**

Country	1950			1951		
	Raw Materials	Partly Manu- factured	Fully or Chiefly Manu- factured	Raw Materials	Partly Manu- factured	Fully or Chiefly Manu- factured
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Foreign Countries—concluded						
Honduras.....	5,568	52	1	4,014	13	1
Hungary.....	—	—	36	13	—	108
Iceland.....	—	—	232	—	—	26
Iran.....	4	3	185	9	3	509
Iraq.....	—	—	1,201	—	—	2,132
Ireland.....	72	1	74	735	4	46
Israel.....	—	—	490	—	—	929
Italy.....	1,143	948	7,281	1,117	699	12,401
Other Italian Africa.....	2	—	—	3	—	—
Japan.....	1,101	278	10,708	2,168	653	9,756
Korea.....	35	—	—	—	—	—
Latvia.....	—	—	3	—	—	33
Liberia.....	—	—	—	183	—	—
Lithuania.....	—	—	—	—	—	12
Mexico.....	30,666	678	1,630	15,108	1,868	1,036
Morocco.....	621	2	81	890	1	181
The Netherlands.....	1,927	685	6,284	2,814	939	10,257
Indonesia.....	390	8	331	799	24	228
Surinam.....	228	—	—	1,141	—	1
Netherlands Antilles.....	128	108	17,100	131	—	10,678
Nicaragua.....	337	2	—	593	2	—
Norway.....	4	461	940	86	743	2,148
Panama.....	5,478	—	—	3,310	13	169
Paraguay.....	—	4	346	—	—	343
Peru.....	3,786	30	145	5,455	16	117
Philippines.....	1,275	4,382	769	1,886	6,815	253
Poland.....	79	—	278	652	1	776
Portugal.....	128	—	1,570	185	155	1,641
Azores and Madeira.....	—	—	387	—	—	410
Portuguese Africa.....	109	—	—	198	—	—
Roumania.....	—	—	19	—	—	22
Siam (Thailand).....	1,156	10	15	1,882	30	26
Spain.....	289	1,320	1,949	441	1,454	5,219
Canary Islands.....	—	—	6	—	—	16
Sweden.....	245	37	4,863	310	108	11,389
Switzerland.....	21	8	14,435	90	27	16,281
Syria.....	49	—	12	16,335	—	46
Turkey.....	622	—	658	918	—	839
Union of Soviet Socialist Republics.....	52	10	19	304	1	53
United States.....	519,345	82,458	1,528,674	556,776	114,517	2,141,634
Alaska.....	74	6	897	203	—	1,280
American Virgin Islands.....	—	—	12	—	—	166
Hawaii.....	13	—	482	54	28	1,331
Puerto Rico.....	78	138	715	57	25	1,194
United States Oceania.....	—	115	—	—	—	—
Uruguay.....	1,423	456	891	925	1,090	1,753
Venezuela.....	81,388	—	5,876	126,229	1	10,488
Yugoslavia.....	61	37	23	75	15	59
Totals, Foreign Countries.....	751,717	102,706	1,674,205	849,547	144,627	2,363,594
Grand Totals.....	851,304	250,474	2,072,475	1,006,053	304,037	2,774,766
Continents						
Europe.....	20,958	68,191	418,357	23,775	73,787	501,366
North America.....	583,451	115,816	1,557,785	608,397	151,519	2,165,338
South America.....	139,231	15,227	19,551	199,005	19,336	28,324
Asia.....	69,531	13,839	61,518	112,090	24,689	58,576
Oceania.....	19,811	25,192	10,328	42,150	25,346	16,606
Africa.....	18,316	12,209	4,334	20,636	6,360	4,556

16.—Exports of Canadian Produce according to Degree of Manufacture, by Countries and Continents, 1950 and 1951

Country	1950			1951		
	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured
Commonwealth Countries	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
United Kingdom.....	217,314	144,888	107,708	244,338	284,095	103,028
Aden.....	—	—	31	—	—	25
Africa, British East.....	1	—	848	6	7	1,430
Southern Rhodesia.....	11	602	589	22	1,584	1,064
Northern Rhodesia.....	—	77	318	—	52	228
Union of South Africa.....	16,138	5,656	20,767	11,112	8,486	33,138
Other British South Africa.....	—	—	5	—	22	4
Cambria.....	—	—	12	—	—	26
Gold Coast.....	—	—	580	—	—	980
Nigeria.....	—	—	247	—	—	796
Sierra Leone.....	—	—	219	—	—	200
Other British West Africa.....	—	—	—	—	—	1
Anglo-Egyptian Sudan.....	—	2	73	—	—	34
India.....	5,207	6,677	19,636	18,677	5,028	12,031
Pakistan.....	5	319	8,357	—	269	4,217
Ceylon.....	—	9	4,344	1	24	3,445
Federation of Malaya.....	39	180	3,878	172	110	10,513
Other British East Indies.....	—	—	32	—	—	—
Bermuda.....	734	110	2,148	843	141	2,709
British Guiana.....	572	67	3,413	534	79	4,695
British Honduras.....	7	—	484	4	—	668
Barbados.....	242	373	2,359	420	1,046	3,118
Jamaica.....	723	70	6,702	881	157	9,175
Trinidad and Tobago.....	941	308	6,227	1,093	358	8,499
Bahamas.....	165	125	1,646	158	144	1,833
Leeward and Windward Islands.....	134	255	2,824	201	377	3,652
Falkland Islands.....	—	—	1	—	—	2
Gibraltar.....	—	5	324	—	39	609
Hong Kong.....	197	829	6,978	593	1,691	9,749
Malta.....	4,532	72	75	1,359	45	746
Australia.....	335	9,352	25,759	1,260	16,484	31,336
Fiji.....	—	185	49	32	604	167
New Zealand.....	12	1,220	9,751	19	2,928	18,810
Other British Oceania.....	—	9	6	—	73	9
Totals, Commonwealth Countries.....	247,309	171,391	236,389	281,725	323,844	266,838
Foreign Countries						
Afghanistan.....	—	—	52	—	—	97
Albania.....	—	—	—	—	—	1
Arabia.....	128	104	642	96	258	1,060
Argentina.....	166	193	13,000	139	2,737	6,008
Austria.....	467	615	1,287	329	623	1,215
Belgium and Luxembourg.....	49,456	3,870	13,025	73,093	8,834	12,530
Belgian Congo.....	15	78	2,378	4	97	4,217
Bolivia.....	1,612	52	603	1,651	150	1,683
Brazil.....	1,913	3,444	10,449	6,858	13,220	33,606
Bulgaria.....	—	—	215	—	—	8
Burma.....	—	—	30	—	—	279
Chile.....	4,375	581	1,908	6,653	2,077	5,021
China.....	9	542	1,506	13	44	310
Colombia.....	5,306	1,440	8,059	2,114	1,506	8,690
Costa Rica.....	353	131	1,828	99	62	2,013
Cuba.....	727	2,119	15,159	1,185	1,880	17,359
Czechoslovakia.....	1,174	543	462	25	—	467
Denmark.....	108	128	687	3,478	625	1,485
Greenland.....	8	—	126	1	—	205
Dominican Republic.....	91	133	2,730	119	216	3,726
Ecuador.....	554	10	868	180	7	2,526
Egypt.....	2,343	164	1,209	925	257	1,284
El Salvador.....	74	126	1,267	—	202	1,800
Ethiopia.....	—	—	54	—	—	198
Finland.....	230	4	367	981	102	2,047
France.....	2,004	8,200	8,199	12,864	19,887	13,788
French Africa.....	15	284	1,628	4,530	241	1,976
French East Indies.....	—	—	69	—	—	223
French Guiana.....	—	—	5	—	—	4
French Oceania.....	3	191	544	2	411	214
French West Indies.....	—	1	38	—	3	37
Madagascar.....	—	—	117	—	—	102
St. Pierre and Miquelon.....	393	66	603	439	70	677

16.—Exports of Canadian Produce according to Degree of Manufacture, by Countries and Continents, 1950 and 1951—concluded

Country	1950			1951		
	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured
Foreign Countries—concluded	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Germany.....	1,925	1,873	5,075	18,506	10,389	8,133
Greece.....	55	417	1,361	—	1,385	1,319
Guatemala.....	7	106	2,288	27	147	2,192
Haiti.....	17	6	2,489	13	4	2,572
Honduras.....	200	52	360	16	16	3,543
Hungary.....	24	—	61	12	—	18
Iceland.....	—	55	793	21	46	632
Iran.....	—	16	977	—	7	993
Iraq.....	—	4	66	—	82	980
Ireland.....	9,029	1,339	2,954	13,283	3,826	3,812
Israel.....	6,456	438	5,231	3,292	2,308	6,216
Italy.....	5,969	2,246	7,261	23,809	7,576	17,379
Tripoli.....	372	—	2	2,021	—	8
Other Italian Africa.....	184	—	—	—	—	8
Japan.....	13,935	1,408	5,190	44,475	20,203	8,298
Korea.....	35	—	1,108	—	—	213
Liberia.....	—	—	108	—	—	1,372
Lithuania.....	—	—	1	—	—	—
Mexico.....	524	3,252	13,848	383	5,564	23,932
Morocco.....	9	84	1,607	538	67	2,776
The Netherlands.....	2,547	2,980	3,090	19,275	3,766	3,150
Indonesia.....	36	7	3,010	7	61	5,159
Surinam.....	—	—	863	9	2	923
Netherlands Antilles.....	62	109	4,293	47	100	1,687
Nicaragua.....	8	83	665	—	75	1,022
Norway.....	14,935	179	3,810	26,698	222	5,278
Panama.....	81	385	8,553	70	150	5,741
Paraguay.....	—	10	100	—	—	167
Peru.....	354	721	2,670	390	942	3,722
Philippines.....	27	692	10,110	48	761	14,789
Poland.....	24	846	563	1	21	72
Portugal.....	10	499	5,131	575	236	3,853
Azores and Madeira.....	—	—	210	—	—	259
Portuguese Africa.....	14	1,426	1,262	5	1,590	1,232
Portuguese Asia.....	—	—	103	—	—	107
Roumania.....	—	—	122	1	—	10
Siam (Thailand).....	21	10	1,169	41	1	2,335
Spain.....	5,233	73	336	102	245	394
Canary Islands.....	—	—	237	—	—	107
Spanish Africa.....	—	—	62	—	—	75
Sweden.....	283	1,489	2,478	3,188	5,027	3,910
Switzerland.....	19,966	1,556	4,912	14,303	3,798	7,244
Syria.....	9	118	1,335	2,964	247	3,826
Jordan.....	—	—	46	991	—	81
Turkey.....	162	—	3,582	918	8	2,036
Union of Soviet Socialist Republics.....	—	—	182	—	—	7
United States.....	466,997	755,760	798,231	578,812	809,049	909,813
Alaska.....	757	25	177	762	129	1,373
American Virgin Islands.....	1	30	125	11	22	147
Hawaii.....	592	1,467	4,770	530	1,286	4,602
Puerto Rico.....	734	1,045	5,864	695	664	6,761
United States Oceania.....	—	7	198	—	6	185
Uruguay.....	243	320	1,355	339	1,349	5,181
Venezuela.....	1,880	1,294	22,283	1,820	1,066	24,096
Yugoslavia.....	—	37	781	933	—	1,805
Totals, Foreign Countries.....	625,241	805,485	1,032,571	875,706	935,950	1,230,397
Grand Totals.....	872,550	976,876	1,268,960	1,157,431	1,259,795	1,497,235
Continents						
Europe.....	335,287	171,913	171,468	457,173	350,786	193,198
North America.....	473,980	764,672	881,033	586,279	820,578	1,014,154
South America.....	16,974	8,133	65,576	20,687	23,135	96,323
Asia.....	26,266	11,354	77,484	72,287	31,102	86,985
Oceania.....	942	12,432	41,076	1,842	21,792	55,322
Africa.....	19,101	8,373	32,322	19,164	12,403	51,252

17.—Imports of Certain Raw Materials Used in Canadian Manufactures, 1942-51

NOTE.—Figures for the years ended Mar. 31, 1902-10, are given in the 1926 Year Book, p. 463; those for the years ended Mar. 31, 1911-39, are given in the 1940 edition, p. 533. Calendar-year figures are available only for 1926 and subsequent years; those for 1926-41 are given in the 1948-49 edition, pp. 927-928.

Year	Sugar for Refining	Vegetable Oil for Soap	Cotton-seed Oil, Crude	Rubber, Raw (including Balata) and Latex	Tobacco, Raw	Hides and Skins	Cotton, Raw (including Linters)	Hemp, Dressed or Undressed	Silk, etc., Raw
	tons	gal.	cwt.	cwt.	lb.	cwt.	cwt.	cwt.	lb.
1942....	304,786	3,420,531	101,244	738,235	1,452,330	356,540	2,802,545	—	106,015
1943....	412,699	3,089,133	187,036	459,085	1,323,847	347,652	1,509,916	—	—
1944....	445,829	1,902,400	306,224	164,536	1,380,157	230,597	1,816,530	—	—
1945....	418,838	3,293,622	244,814	186,609	1,581,290	121,689	2,023,135	—	—
1946....	430,849	2,661,722	82,555	300,523	1,745,604	95,687	1,616,390	448	22,893
1947....	498,118	1,862,044	49,321	774,559	1,589,359	350,083	2,039,139	—	342,850
1948....	613,879	562,644	120,758	957,147	1,617,341	325,669	1,824,746	—	124,504
1949....	622,278	516,730	593,353	897,114	1,577,395	3,691,232	2,206,595	1,661	128,501
1950....	639,095	2,106,880	842,854	1,036,433	1,321,546	3,334,534	2,455,101	2,154	137,664
1951....	546,276	1,410,260	290,157	1,075,486	1,151,574	2,7151,601	2,140,281	2,501	70,187
	Wool, Raw ²	Noils, Waste and Tops, Wool	Artificial Silk Rovings, Yarns, etc.	Manila, Sisal, Istle, Tampico	Rags, Waste Paper, and Other Waste	Iron Ore	Alumina, Bauxite, Cryolite	Tin in Blocks, Ingots, etc.	Petroleum, Crude for Refining
	cwt.	cwt.	lb.	cwt.	cwt.	tons	cwt.	cwt.	'000 gal.
1942....	739,494	126,369	3,541,497	788,081	1,036,298	2,701,968	26,679,928	72,051	1,542,597
1943....	795,033	80,884	3,317,187	740,955	944,393	3,906,425	60,661,690	26,311	1,739,505
1944....	281,475	62,492	10,161,758	810,906	1,098,846	3,126,649	26,613,324	26,823	1,996,445
1945....	304,923	72,849	13,954,822	730,086	1,125,341	3,739,867	18,880,295	71,950	1,987,943
1946....	532,407	118,787	7,874,871	967,970	1,767,857	2,281,677	25,723,852	84,020	2,218,963
1947....	395,439	121,067	21,975,689	937,017	2,042,162	3,944,550	28,002,714	88,723	2,395,283
1948....	425,248	181,038	21,107,587	792,391	2,294,396	4,300,163	40,306,649	80,588	2,643,758
1949....	321,443	127,971	22,646,972	440,487	1,583,833	2,517,235	35,887,446	82,332	2,587,709
1950....	344,383	168,647	17,424,956	628,945	2,020,442	3,070,557	37,312,022	107,909	2,752,700
1951....	301,300	144,560	27,819,536	923,737	2,610,367	3,831,418	48,170,988	137,430	2,914,911

¹ Quantity given in number instead of by hundred-weight.
goat, etc.

² Includes hair of the camel, alpaca.

18.—Imports according to Origin, by Groups and Degree of Manufacture, 1950 and 1951

Origin	1950			1951		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
Farm Origin	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
CANADIAN FARM PRODUCTS— ¹						
Field Crops—						
Raw materials.....	2,217	72,198	82,021	742	80,551	89,561
Partly manufactured.....	25	1,783	2,593	2	3,257	4,020
Fully or chiefly manufactured.....	18,990	14,293	39,327	19,363	25,030	54,172
Totals, Field Crops.....	21,232	88,275	123,941	20,107	108,838	147,753
Animal Husbandry—						
Raw materials.....	4,131	16,907	48,147	6,489	32,886	90,008
Partly manufactured.....	30,568	10,680	46,035	42,049	12,482	62,222
Fully or chiefly manufactured.....	46,277	13,136	76,769	58,150	19,073	111,277
Totals, Animal Husbandry.....	80,977	40,723	170,952	106,688	64,441	263,507
All Canadian Farm Products—						
Raw materials.....	6,349	89,106	130,168	7,231	113,438	179,568
Partly manufactured.....	30,594	12,463	48,628	42,050	15,739	66,243
Fully or chiefly manufactured.....	65,266	27,429	116,097	77,513	44,102	165,449
TOTALS, CANADIAN FARM PRODUCTS.....	102,209	128,998	294,893	126,795	173,279	411,260

For footnote, see end of table, p. 969.

**18.—Imports according to Origin, by Groups and Degree of Manufacture,
1950 and 1951—continued**

Origin	1950			1951		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
Farm Origin—concluded	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
FOREIGN FARM PRODUCTS—1						
Field Crops—						
Raw materials.....	2,007	107,806	251,911	1,058	143,065	307,534
Partly manufactured.....	2,533	16,555	108,395	92	13,314	109,730
Fully or chiefly manufactured.....	32,060	84,010	206,223	35,645	108,847	230,974
Totals, Field Crops.....	36,600	208,372	566,529	36,795	265,227	648,237
Animal Husbandry—						
Raw materials.....	353	7,250	8,471	895	5,580	7,114
Partly manufactured.....	—	12	12	1	10	11
Fully or chiefly manufactured.....	752	4,747	7,845	897	4,807	8,351
Totals, Animal Husbandry.....	1,105	12,009	16,328	1,792	10,397	15,476
All Foreign Farm Products—						
Raw materials.....	2,360	115,056	260,382	1,953	148,646	314,648
Partly manufactured.....	2,533	16,567	108,406	93	13,325	109,741
Fully or chiefly manufactured.....	32,812	88,577	214,069	36,542	113,653	239,325
TOTALS, FOREIGN FARM PRODUCTS.....	37,705	220,380	582,857	38,588	275,624	663,713
ALL FARM PRODUCTS—						
All Field Crops—						
Raw materials.....	4,224	180,004	333,932	1,801	223,617	397,094
Partly manufactured.....	2,558	18,339	110,987	94	16,572	113,750
Fully or chiefly manufactured.....	51,050	98,303	245,551	55,008	133,876	285,145
Totals, All Field Crops.....	57,832	296,646	690,470	56,902	374,065	795,990
All Animal Husbandry—						
Raw materials.....	4,484	24,157	56,618	7,383	38,467	97,122
Partly manufactured.....	30,568	10,691	46,047	42,049	12,492	62,233
Fully or chiefly manufactured.....	47,029	17,883	84,614	59,048	23,880	119,629
Totals, All Animal Husbandry.....	82,082	52,732	187,280	108,480	74,839	278,983
All Farm Products—						
Raw materials.....	8,709	204,161	390,550	9,184	262,083	494,216
Partly manufactured.....	33,127	29,030	157,034	42,143	29,064	175,984
Fully or chiefly manufactured.....	98,079	116,186	330,165	114,055	157,756	404,774
Totals, Farm Origin.....	139,914	349,378	877,750	165,382	448,903	1,074,974
Wild-life Origin						
Raw materials.....	71	9,515	9,685	536	7,821	9,254
Partly manufactured.....	76	612	760	268	1,076	1,368
Fully or chiefly manufactured.....	333	556	943	381	702	1,141
Totals, Wild-life Origin.....	481	10,683	11,388	1,185	9,599	11,763
Marine Origin						
Raw materials.....	8	1,776	2,169	4	2,119	3,163
Partly manufactured.....	—	—	—	—	—	—
Fully or chiefly manufactured.....	199	2,746	4,376	266	3,772	6,342
Totals, Marine Origin.....	206	4,521	6,546	270	5,891	9,504
Forest Origin						
Raw materials.....	—	3,764	3,976	1	6,981	7,227
Partly manufactured.....	27	21,275	22,060	46	29,386	31,287
Fully or chiefly manufactured.....	3,706	70,189	78,535	4,325	90,782	101,493
Totals, Forest Origin.....	3,733	95,227	104,571	4,371	127,149	140,007
Mineral Origin						
Raw Materials.....	5,767	300,104	444,899	4,268	277,716	492,137
Partly manufactured.....	24,648	22,734	60,528	20,952	40,116	79,371
Fully or chiefly manufactured.....	193,474	1,096,983	1,357,232	185,106	1,518,880	1,811,664
Totals, Mineral Origin.....	223,889	1,419,821	1,862,660	210,326	1,836,712	2,383,173

For footnote, see end of table, p. 969.

**18.—Imports according to Origin, by Groups and Degree of Manufacture,
1950 and 1951—concluded**

Origin	1950			1951		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
Mixed Origin	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Raw materials.....	—	24	24	—	56	56
Partly manufactured.....	447	8,807	10,091	561	14,874	16,027
Fully or chiefly manufactured.....	35,544	242,014	301,224	38,889	369,743	449,352
Totals, Mixed Origin.....	35,991	250,846	311,339	39,450	384,673	465,435
Recapitulation						
Raw materials.....	14,554	519,345	851,304	13,993	556,776	1,006,053
Partly manufactured.....	58,326	82,458	250,474	63,969	114,517	304,037
Fully or chiefly manufactured.....	331,334	1,528,674	2,072,475	343,022	2,141,634	2,774,766
Grand Totals.....	404,213	2,130,476	3,174,253	420,985	2,812,927	4,084,856

¹ In this classification the expression "Canadian Farm Products" refers to all commodities of which the basic raw materials are such as Canadian farms produce. "Foreign Farm Products" covers materials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, etc.

**19.—Exports according to Origin, by Groups and Degree of Manufacture,
1950 and 1951**

Origin	1950			1951		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
Farm Origin	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
CANADIAN FARM PRODUCTS—¹						
Field Crops—						
Raw materials.....	186,089	116,595	453,093	183,289	176,752	647,310
Partly manufactured.....	278	4,986	9,056	87	4,269	8,661
Fully or chiefly manufactured.....	42,271	50,063	160,312	46,284	72,393	205,085
Totals, Field Crops.....	228,638	171,644	622,460	229,659	253,414	861,056
Animal Husbandry—						
Raw materials.....	1,921	138,264	150,030	3,230	143,294	151,908
Partly manufactured.....	863	5,919	9,395	1,256	6,314	10,638
Fully or chiefly manufactured.....	41,984	12,889	69,824	10,333	14,669	40,488
Totals, Animal Husbandry.....	44,768	157,072	229,249	14,819	164,277	203,034
All Canadian Farm Products—						
Raw materials.....	188,010	254,859	603,122	186,518	320,046	799,218
Partly manufactured.....	1,141	10,905	18,451	1,344	10,583	19,299
Fully or chiefly manufactured.....	84,254	62,952	230,136	56,617	87,062	245,572
TOTALS, CANADIAN FARM PRODUCTS.....	273,405	328,716	851,710	244,479	417,691	1,064,090
FOREIGN FARM PRODUCTS—¹						
Field Crops—						
Raw materials.....	—	151	153	—	1,731	1,731
Partly manufactured.....	—	2,412	2,426	202	2,911	3,368
Fully or chiefly manufactured.....	707	9,791	25,804	2,381	15,510	48,768
Totals, Field Crops.....	707	12,354	28,382	2,583	20,152	53,867
Animal Husbandry—						
Raw materials.....	—	—	—	—	—	—
Partly manufactured.....	—	—	—	—	—	—
Fully or chiefly manufactured.....	—	6	7	—	—	1
Totals, Animal Husbandry.....	—	6	7	—	—	1

For footnote, see end of table, p. 970.

**19.—Exports according to Origin, by Groups and Degree of Manufacture,
1950 and 1951—concluded**

Origin	1950			1951		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Farm Origin—concluded						
FOREIGN FARM PRODUCTS—concluded ¹						
All Foreign Farm Products—						
Raw materials.....	—	151	153	—	1,731	1,731
Partly manufactured.....	—	2,412	2,426	202	2,911	3,368
Fully or chiefly manufactured.....	707	9,796	25,811	2,381	15,510	48,769
TOTALS, FOREIGN FARM PRODUCTS.....	707	12,360	28,389	2,583	20,153	53,868
ALL FARM PRODUCTS—						
All Field Crops—						
Raw materials.....	186,089	116,746	453,245	183,289	178,483	649,041
Partly manufactured.....	278	7,398	11,482	290	7,180	12,029
Fully or chiefly manufactured.....	42,978	59,854	186,116	48,665	87,903	253,653
TOTALS, All Field Crops.....	229,345	183,998	650,843	232,243	273,567	914,923
All Animal Husbandry—						
Raw materials.....	1,921	138,264	150,030	3,230	143,294	151,908
Partly manufactured.....	863	5,919	9,395	1,256	6,314	10,638
Fully or chiefly manufactured.....	41,984	12,895	69,831	10,333	14,669	40,488
TOTALS, All Animal Husbandry.....	44,768	157,078	229,256	14,819	164,277	203,035
All Farm Products—						
Raw Materials.....	188,010	255,010	603,275	186,518	321,777	800,949
Partly manufactured.....	1,141	13,318	20,877	1,546	13,494	22,667
Fully or chiefly manufactured.....	84,962	72,749	255,947	58,998	102,572	294,341
TOTALS, Farm Origin.....	274,113	341,076	880,099	247,062	437,844	1,117,958
Wild-life Origin						
Raw materials.....	4,000	19,493	23,840	7,314	20,461	28,364
Partly manufactured.....	10	513	633	10	809	918
Fully or chiefly manufactured.....	1	848	873	2	608	631
TOTALS, Wild-life Origin.....	4,011	20,855	25,346	7,326	21,877	29,912
Marine Origin						
Raw materials.....	86	64,360	64,651	128	68,003	68,496
Partly manufactured.....	—	1,030	1,064	41	752	804
Fully or chiefly manufactured.....	4,951	15,409	52,374	7,908	16,041	54,082
TOTALS, Marine Origin.....	5,038	80,800	118,089	8,077	84,796	123,382
Forest Origin						
Raw materials.....	1,697	44,284	46,434	6,425	70,335	82,706
Partly manufactured.....	36,097	456,314	518,561	122,499	491,634	703,049
Fully manufactured.....	2,913	515,818	548,000	12,302	552,630	613,411
TOTALS, Forest Origin.....	40,707	1,016,416	1,112,996	141,226	1,114,600	1,399,167
Mineral Origin						
Raw materials.....	23,521	83,850	134,350	43,953	98,237	176,915
Partly manufactured.....	107,641	284,079	435,229	159,998	301,886	531,836
Fully or chiefly manufactured.....	7,375	128,119	273,022	13,546	161,251	379,456
TOTALS, Mineral Origin.....	138,537	496,048	842,600	217,496	561,374	1,088,207
Mixed Origin						
Raw materials.....	—	—	—	—	—	—
Partly manufactured.....	—	505	513	1	474	521
Fully or chiefly manufactured.....	7,506	65,287	138,743	10,273	76,711	155,314
TOTALS, Mixed Origin.....	7,506	65,792	139,256	10,274	77,185	155,835
Recapitulation						
Raw materials.....	217,314	466,997	872,550	244,338	578,812	1,157,431
Partly manufactured.....	114,888	755,760	976,876	284,095	809,049	1,259,795
Fully manufactured.....	107,708	798,231	1,268,960	103,028	909,813	1,497,235
Grand Totals.....	469,910	2,020,988	3,118,387	631,461	2,297,675	3,914,460

¹ In this classification the expression "Canadian Farm Products" refers to commodities actually produced, in their original state, on Canadian farms. "Foreign Farm Products" covers materials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, etc.

20.—Imports according to Purpose, by Groups, 1950 and 1951

Group and Purpose	1950			1951		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Producers' Materials						
FARM MATERIALS						
Fodders.....	—	18,728	19,890	4	20,008	20,530
Fertilizers.....	71	7,038	9,118	119	9,167	10,576
Seeds.....	2,005	4,064	6,941	441	6,815	8,270
Other.....	565	7,433	8,270	650	7,760	9,101
TOTALS, FARM MATERIALS.....	2,641	37,263	44,219	1,215	43,750	48,476
MANUFACTURERS' MATERIALS						
Foodstuffs and beverages.....	361	5,913	11,377	433	6,311	12,646
Tobacco, smokers' supplies.....	1	1,432	2,659	...	1,161	2,806
Textiles, clothing, cordage.....	83,623	136,642	309,777	106,380	192,041	410,759
Fur and leather goods.....	5,420	31,215	43,940	7,295	30,111	46,306
Sawmills.....	—	—	—	—	—	—
Rubber industries.....	784	9,786	37,135	1,039	11,317	68,440
Other manufactures.....	57,481	428,975	661,854	65,022	526,700	875,083
TOTALS, MANUFACTURERS' MATERIALS...	147,670	613,962	1,066,742	180,169	767,640	1,415,540
BUILDING AND CONSTRUCTION MATERIALS.	17,994	77,581	101,480	22,080	101,753	143,714
OTHER PRODUCERS' MATERIALS.....	72	1,457	1,529	96	1,733	1,850
Totals, Producers' Materials.....	168,376	730,263	1,213,969	203,561	914,876	1,609,580
Producers' Equipment						
Farm.....	9,222	154,914	165,949	7,456	191,601	201,382
Commerce and industry.....	32,622	330,423	370,833	48,834	488,386	554,693
Totals, Producers' Equipment.....	41,844	485,337	536,782	56,291	679,987	756,074
Fuel, Electricity and Lubricants						
Fuel.....	5,035	240,531	269,719	3,402	247,703	273,237
Electricity.....	—	437	437	—	156	156
Lubricants.....	26	6,310	6,372	26	11,285	11,370
Totals, Fuel, etc.....	5,060	247,278	276,528	3,428	259,144	284,763
Transport						
Road.....	81,296	190,574	273,116	38,005	264,027	303,055
Rail.....	9	6,938	6,948	9	3,726	3,736
Water.....	358	3,568	4,186	544	5,916	6,821
Aircraft.....	6,361	12,447	18,818	8,254	52,430	61,044
Totals, Transport.....	88,024	213,517	303,069	46,813	326,098	374,656
Auxiliary Materials for Commerce and Industry						
Advertising material.....	348	4,116	4,507	304	4,308	4,663
Containers.....	2,498	14,379	18,891	3,425	19,285	25,351
Other.....	118	4,494	4,633	141	6,807	6,969
Totals, Auxiliary Materials.....	2,963	22,989	28,030	3,870	30,400	36,983
Consumer Goods						
Foods.....	10,883	86,083	262,553	8,758	117,173	304,625
Beverages.....	10,894	11,356	98,337	10,149	11,435	97,738
Smokers' supplies.....	361	1,729	2,577	347	1,787	2,582
Clothing.....	16,451	25,716	45,901	17,971	38,799	61,235

20.—Imports according to Purpose, by Groups, 1950 and 1951—concluded

Group and Purpose	1950			1951		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Consumer Goods—concluded						
Household goods.....	30,520	63,000	104,195	33,352	96,122	142,041
Jewellery, time pieces, etc.....	2,471	8,769	24,094	1,922	9,337	23,282
Books, educational supplies, etc.....	2,858	33,086	38,128	3,255	39,781	46,054
Recreational equipment, etc.....	3,633	12,650	19,434	3,845	19,065	26,208
Medical supplies, etc.....	2,188	29,601	34,264	2,247	36,184	41,843
Other.....	1,589	4,308	6,718	1,490	4,398	6,837
Totals, Consumer Goods.....	81,849	276,297	636,200	83,336	371,082	752,441
Totals, Munitions and War Stores.....	2,459	2,428	5,329	4,606	12,517	17,827
Totals, Live Animals for Food.....	—	20	20	—	25	25
Totals, Unclassified.....	13,638	152,347	174,325	19,080	215,798	252,504
Grand Totals.....	404,213	2,130,476	3,174,253	420,985	2,812,927	4,084,856

21.—Exports according to Purpose, by Groups, 1950 and 1951

Group and Purpose	1950			1951		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Producers' Materials						
FARM MATERIALS						
Fodders.....	—	64,414	73,894	8,914	100,633	162,796
Fertilizers.....	86	30,022	40,398	143	31,706	36,783
Seeds.....	97	15,927	17,853	320	14,737	16,888
Other.....	—	3,815	3,885	—	5,713	6,139
TOTALS, FARM MATERIALS.....	182	114,178	136,030	9,378	152,790	222,606
MANUFACTURERS' MATERIALS						
Foodstuffs and beverages.....	173,651	28,528	325,667	159,179	65,074	441,106
Tobacco, smokers' supplies.....	8,320	35	10,602	13,491	20	16,439
Textile, clothing, cordage.....	789	7,590	15,490	700	6,427	18,215
Fur and leather goods.....	6,026	32,354	44,954	9,922	36,983	50,224
Sawmills.....	512	3,754	4,583	727	3,865	5,132
Rubber industries.....	—	446	448	—	751	757
Other manufacturers.....	150,269	1,096,409	1,380,996	265,922	1,283,257	1,796,814
TOTALS, MANUFACTURERS' MATERIALS.....	339,567	1,169,116	1,782,739	449,942	1,396,378	2,328,687
BUILDING AND CONSTRUCTION MATERIALS.....	21,464	289,511	339,006	83,547	233,388	362,298
OTHER PRODUCERS' MATERIALS.....	—	1,486	2,102	—	1,019	2,030
Totals, Producers' Materials.....	361,223	1,574,291	2,259,879	542,867	1,783,575	2,915,620
Producers' Equipment						
Farm.....	882	94,640	112,827	596	109,154	133,956
Commerce and industry.....	5,049	27,145	64,101	6,795	40,300	98,012
Totals, Producers' Equipment.....	5,931	121,784	176,928	7,391	149,454	231,968

21.—Exports according to Purpose, by Groups, 1950 and 1951—concluded

Group and Purpose	1950			1951		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Fuel, Electricity and Lubricants						
Fuel.....	951	11,110	14,374	1,329	8,767	13,483
Electricity.....	—	6,102	6,102	—	7,938	7,938
Lubricants.....	—	54	107	1	14	197
Totals, Fuel, Etc.	951	17,266	20,583	1,330	16,718	21,618
Transport						
Road.....	218	1,979	48,041	369	4,785	98,569
Rail.....	—	358	15,411	1	504	4,345
Water.....	—	467	22,603	—	628	8,638
Aircraft.....	296	2,356	4,383	162	5,814	7,524
Totals, Transport.	514	5,160	90,439	532	11,731	119,076
Auxiliary Materials for Commerce and Industry						
Containers.....	479	2,367	6,796	1,247	5,614	14,171
Other.....	—	—	68	—	7	237
Totals, Auxiliary Materials.	479	2,367	6,863	1,247	5,621	14,408
Consumer Goods						
Foods.....	92,362	145,513	344,866	64,534	173,215	358,145
Beverages.....	378	35,501	43,937	640	46,514	56,929
Smokers' supplies.....	—	15	40	—	24	181
Clothing.....	571	6,262	8,268	2,090	5,037	9,636
Household goods.....	283	2,780	8,918	467	3,048	12,681
Jewellery, timepieces, etc.....	43	46	473	75	158	1,216
Books, educational supplies, etc.....	163	2,011	5,072	244	3,325	9,456
Recreational equipment, etc.....	374	4,330	6,486	733	6,483	10,161
Medical supplies, etc.....	255	1,812	6,489	403	1,180	7,470
Other.....	2	72	349	18	134	924
Totals, Consumer Goods.	94,432	198,340	424,896	69,203	239,118	466,800
Totals, Munitions and War Stores.	1	385	3,825	235	347	3,189
Totals, Live Animals for Food.	—	65,876	66,001	—	45,626	45,773
Totals, Unclassified.	6,379	35,519	68,974	8,656	45,484	96,009
Grand Totals.	469,910	2,020,988	3,118,387	631,461	2,297,675	3,914,460

Section 6.—Comparison of Value, Price and Volume of Foreign Trade

Since the end of World War II the value of Canada's exports and imports has increased steadily. At the same time, the level of prices at which exports are sold and imports purchased has risen consistently. Changes in the value of exports and imports are the joint product of changes in the volume of goods traded and the prices at which transactions are conducted. To obtain a clear picture of the fluctuations in Canada's merchandise trade it is desirable to isolate the contributions made to these fluctuations by the price and volume factors.

Special indexes of export and import prices have been developed to give this information. These indexes are based chiefly on average prices calculated from the trade statistics (supplemented in some cases by wholesale and other price

information) and combined according to the relative importance of the commodities in the trade of 1948. By dividing these price indexes into the trade values the effects of price change can be removed from the values; or, by dividing the price index into an index of values, an index is obtained showing changes in the volume of trade from year to year. Table 22 gives the declared value of trade (adjusted for pricing purposes), the index of values based on 1948, the price index used to deflate the value index, and the resulting volume index.

The grouping of commodities used in this calculation differs slightly from that of the trade statistics, changes being necessary to simplify the pricing problem. The chief difference is that the two trade statistics groups 'agricultural and vegetable products' and 'animals and animal products' have been combined as 'agricultural and animal products'. Rubber and rubber products have been transferred from this group to the 'miscellaneous' group, and a few other transfers have been made designed to improve the component material classification. The totals differ, from those usually published, by the exclusion of certain imports that are for the use of the United Kingdom Government and the governments of NATO countries.

Movements in price value and volume have not always been the same. Export prices have increased steadily in the post-war period, but the volume of exports declined in 1949 and 1950, and did not pass the 1948 peak until 1951. From 1947 to 1951 the value of exports rose 41 p.c., but volume increased by 5 p.c. Imports have expanded steadily in value, but the 1947 volume was not surpassed until 1951. From 1947 to 1951 import value gain was 59 p.c., and volume increase only 11 p.c. The tables do not give comparisons with a pre-war year, but in 1948 (the interim base of the indexes given) the comparison with 1938 was approximately as follows:—

Item	Increase of 1948 Over 1938 in—		
	Value	Price	Volume
	p.c.	p.c.	p.c.
Domestic Exports.....	+267.3	+112.4	+73.0
Imports.....	+290.3	+112.1	+84.0

22.—Declared Values, Prices and Physical Volume Indexes of Foreign Trade, by Commodity Groups, 1947-51

Commodity Group ¹	1947	1948	1949	1950	1951
	DECLARED VALUES				
	\$'000	\$'000	\$'000	\$'000	\$'000
Imports for Consumption—					
Agricultural and animal products.....	414,457	403,014	422,469	522,763	583,674
Fibres and textiles.....	390,589	350,619	333,032	364,509	483,520
Wood products and paper.....	87,236	70,549	82,461	95,859	132,383
Iron and steel and products.....	758,132	783,401	889,398	977,582	1,328,055
Non-ferrous metals and products.....	167,810	156,419	177,861	219,730	297,353
Non-metallic minerals and products.....	449,310	603,271	531,449	608,445	681,356
Chemicals and fertilizers.....	115,943	121,291	134,540	161,517	194,992
Miscellaneous.....	187,383	145,998	188,061	222,819	375,749
Totals, Adjusted Imports ²	2,570,920	2,634,562	2,759,271	3,173,224	4,077,083
Imports for U.K. and NATO Govern- ments.....	3,024	2,383	1,936	1,029	7,773
Totals, Declared Values of Imports.	2,573,944	2,636,945	2,761,207	3,174,253	4,084,856

For footnotes, see end of table, p. 976.

**22.—Declared Values, Prices and Physical Volume Indexes of Foreign Trade, by
Commodity Groups, 1947-51—continued**

Commodity Group ¹	1947	1948	1949	1950	1951
DECLARED VALUES—concluded					
	\$'000	\$'000	\$'000	\$'000	\$'000
Exports of Domestic Products—					
Agricultural and animal products.....	982,017	1,045,471	1,085,648	990,520	1,213,176
Fibres and textiles.....	49,347	45,554	25,217	29,573	36,858
Wood products and paper.....	886,192	953,674	875,318	1,112,945	1,399,076
Iron and steel and products.....	297,121	362,913	334,023	273,242	350,369
Non-ferrous metals and products.....	303,937	395,948	426,608	457,262	569,870
Non-metallic minerals and products....	74,614	94,915	73,710	103,655	131,529
Chemicals and fertilizers.....	83,804	79,840	70,698	100,525	131,690
Miscellaneous.....	97,870	97,123	101,739	50,665	81,892
Totals, Declared Values of Exports.	2,774,902	3,075,438	2,992,961	3,118,387	3,914,460
P.C. Change					
	1947	1949	1950	1951	
				1947 to 1951	1950 to 1951
VALUE INDEXES (1948=100)					
Imports for Consumption—					
Agricultural and animal products.....	102.8	104.8	129.7	144.8	+40.9
Fibres and textiles.....	111.4	95.0	104.0	137.9	+23.8
Wood products and paper.....	123.7	116.9	135.9	187.6	+51.7
Iron and steel and products.....	96.8	113.5	124.8	169.5	+75.1
Non-ferrous metals and products.....	107.3	113.7	140.5	190.1	+77.2
Non-metallic minerals and products....	74.5	88.1	100.9	112.9	+51.5
Chemicals and fertilizers.....	95.6	110.9	133.2	160.8	+68.2
Miscellaneous.....	128.3	128.8	152.6	257.4	+100.6
Totals, Imports².....	97.6	104.7	120.4	154.8	+58.6
Exports of Domestic Products—					
Agricultural and animal products.....	93.9	103.8	94.7	116.0	+23.5
Fibres and textiles.....	108.3	55.4	64.9	80.9	-25.3
Wood products and paper.....	92.9	91.8	116.7	146.7	+57.9
Iron and steel and products.....	81.9	92.0	75.3	96.5	+17.8
Non-ferrous metals and products.....	76.8	107.7	115.5	143.9	+87.4
Non-metallic minerals and products....	78.6	77.7	109.2	138.6	+76.3
Chemicals and fertilizers.....	105.0	88.5	125.9	164.9	+57.0
Miscellaneous.....	100.8	104.8	52.2	84.3	-16.4
Totals, Exports³.....	90.2	97.3	101.4	127.3	+41.1
PRICE INDEXES (1948=100)					
Imports for Consumption—					
Agricultural and animal products.....	92.7	98.7	108.2	121.0	+30.5
Fibres and textiles.....	87.3	100.3	109.3	158.6	+81.7
Wood products and paper.....	92.1	105.7	111.6	118.4	+28.6
Iron and steel and products.....	88.3	107.0	116.1	122.5	+38.7
Non-ferrous metals and products.....	93.1	105.4	106.9	123.2	+32.3
Non-metallic minerals and products....	79.2	101.6	104.4	108.5	+37.0
Chemicals and fertilizers.....	97.6	100.0	102.8	117.2	+20.1
Miscellaneous.....	95.3	97.6	121.5	166.0	+74.2
Totals, Imports².....	88.0	102.6	110.3	126.0	+43.2
Exports of Domestic Products—					
Agricultural and animal products.....	95.4	103.4	105.6	113.5	+19.0
Fibres and textiles.....	84.5	103.4	112.8	139.8	+65.4
Wood products and paper.....	92.0	97.9	105.0	122.4	+33.0
Iron and steel and products.....	88.3	111.4	113.7	125.9	+42.6
Non-ferrous metals and products.....	86.9	105.8	115.1	138.3	+59.1
Non-metallic minerals and products....	88.2	112.4	120.4	131.7	+49.3
Chemicals and fertilizers.....	89.8	104.9	104.2	116.7	+30.0
Miscellaneous.....	90.0	103.7	112.0	132.3	+47.0
Totals, Exports³.....	91.6	103.3	108.3	122.5	+33.7

For footnotes, see end of table, p. 976.

22.—Declared Values, Prices and Physical Volume Indexes of Foreign Trade, by Commodity Groups, 1947-51—concluded

Commodity Group ¹	1947	1949	1950	1951	P.C. Change	
					1947 to 1951	1950 to 1951
					VOLUME INDEXES (1948=100)	
Imports for Consumption—						
Agricultural and animal products.....	110.9	106.2	119.9	119.7	+ 7.9	— 0.2
Fibres and textiles.....	127.6	94.7	95.2	86.9	—31.9	— 8.7
Wood products and paper.....	134.3	110.6	121.8	158.4	+17.9	+30.0
Iron and steel and products.....	109.6	106.1	107.5	138.4	+26.3	+28.7
Non-ferrous metals and products.....	115.3	107.9	131.4	154.3	+33.8	+17.4
Non-metallic minerals and products....	94.1	86.7	96.6	104.1	+10.6	+ 7.8
Chemicals and fertilizers.....	98.0	110.9	129.6	137.2	+40.0	+ 5.9
Miscellaneous.....	134.6	132.0	125.6	155.1	+15.2	+23.5
Totals, Imports².....	110.9	102.0	109.2	122.9	+10.8	+12.5
Exports of Domestic Products—						
Agricultural and animal products.....	98.4	100.4	89.7	102.2	+ 3.9	+13.9
Fibres and textiles.....	128.2	53.6	57.5	57.9	—54.8	+ 0.7
Wood products and paper.....	101.0	93.8	111.1	119.9	+18.7	+ 7.9
Iron and steel and products.....	92.8	82.6	66.2	76.6	—17.5	+15.7
Non-ferrous metals and products.....	88.4	101.8	100.3	104.0	+17.6	+ 3.7
Non-metallic minerals and products....	89.1	69.1	90.7	105.2	+18.1	+16.0
Chemicals and fertilizers.....	116.9	84.4	120.8	141.3	+20.9	+17.0
Miscellaneous.....	112.0	101.1	46.6	63.7	—43.1	+36.7
Totals, Exports³.....	98.5	94.2	93.6	103.9	+ 5.5	+11.0

¹ Groups, though classified by component material, differ slightly from conventional groups (see text, p. 974).
² Excludes imports for the use of the United Kingdom Government and Canada's NATO allies.
³ Excludes exports of foreign produce.

PART III.—EXTERNAL TRANSACTIONS*

Section 1.—Canadian Balance of International Payments

Both the current and capital account of the balance of payments have shown wide fluctuations in recent years. Current account deficits appeared in 1950 and 1951 for the first time since 1933. These deficits, amounting to \$329,000,000 in 1950 and \$524,000,000 in 1951, contrasted sharply with surpluses in the previous four post-war years and were influenced by the growth in the volume of imports in response to high levels of economic activity in Canada. The largest net contributors to the current deficit in both years were, however, payments of interest and dividends and miscellaneous current transactions. Another significant factor was the steady decline since 1948 of the surplus of tourist and travel expenditure until, in 1951, a deficit appeared on this account.

Although the deficits were substantial, they were less than 10 p.c. of total current credits in 1950 and in 1951. By contrast, the deficit of \$337,000,000 in 1930, which is comparable to that of 1950, was 26 p.c. of total current credits in that year. Furthermore, the deficits on current account were concentrated most heavily in the fourth quarter of 1950 and the first half of 1951. The deficit was much smaller in the third quarter of 1951, while in the fourth quarter a surplus appeared with heavier export volume overseas and declining import prices and volume.

* Prepared in the International Payments Section, International Trade Division, Dominion Bureau of Statistics.

One important feature of Canada's current account in the post-war period was the lack of balance in transactions with the United States and with overseas countries. This condition of heavy current account deficits with the United States and large surpluses in overseas transactions was sharply modified in 1950. Revival of United States demand after the business readjustments of 1949, and the defence activity in that country after the outbreak of the Korean conflict, combined with a curtailment in dollar expenditure by overseas countries led to a marked shift in Canadian exports from overseas countries to the United States which, along with a rise in Canadian imports from overseas, resulted in a large decrease from \$776,000,000 in 1949 to \$74,000,000 in 1950 in the surplus with overseas countries. The deficit with the United States, which was \$589,000,000 in 1949, fell to \$403,000,000 in 1950. In 1951, however, the more usual current account pattern reappeared; the current account surplus with overseas countries rose to \$431,000,000, while the deficit of \$955,000,000 with the United States was higher than in any year except 1947.

Capital Movements.—Despite the deficits on current account, the official reserves of gold and United States dollars rose in 1950 and in 1951. These increases were owing to heavy net capital inflows, amounting to \$1,023,000,000 and \$563,000,000 in 1950 and 1951, respectively, most of which were from the United States. In 1950 the reserves rose by \$694,000,000. The larger deficit and smaller capital inflow in 1951 led to a smaller increase in reserves of \$39,000,000.

The large inward movement of capital in 1950 was heavily concentrated in August and September, just before the announcement of the withdrawal of a fixed exchange rate by the Government at the beginning of October. Much of the movement in these months into Canadian dollar assets was owing to widespread speculation in the United States on the future value of Canadian currency. The largest and most characteristic inflow in the period of heaviest movements was United States demand for Canadian securities, particularly outstanding Government of Canada domestic issues. The large increase in non-resident balances in Canada and changes in short-term capital movements associated with the financing of trade, were also, in part, connected with the speculative inflow. On the other hand, some of the capital inflow was a continuation of the post-war interest, especially by United States investors, in building up long-term investments in Canada. New issues of Canadian securities in the United States amounted to \$210,000,000, and covered a large part of redemptions in 1950. The direct investment inflow from the United States and other countries was \$221,000,000.

In contrast to 1950, the most characteristic capital inflows in 1951 were long-term movements connected with the financing of Canadian development. New issues of Canadian securities sold to non-residents amounted to \$411,000,000. About three-quarters of these sales were provincial and municipal bond issues, payable in United States dollars. Net new issues after retirements were \$227,000,000, in contrast to net redemptions of \$73,000,000 in 1950. Inflows for direct investment in branches and subsidiaries of foreign concerns were higher in 1951 than in 1950. The development of industrial plants, which was the major element in the growth of direct investments in Canada in the earlier post-war years, continued to be important, but in 1950 and 1951 the movement of funds was accelerated particularly by the large scale development of petroleum and other mineral resources.

Despite these large capital inflows, non-resident financing of total capital investment in 1950 and 1951 was much smaller than in earlier periods of high investment activity. There are difficult statistical and conceptual problems in such a

comparison. The contribution by non-residents and foreign controlled companies to all types of investment in Canada, less Canadian contributions to investment abroad, was about one-seventh in these two years. If only foreign participation in Canadian investment is considered the proportion was still less than one-fifth. In contrast, Canada was a net exporter of capital for a long period before 1950.

Transactions with the Sterling Area.—A striking feature of current transactions in recent years has been the substantial changes in the credit balance with the Sterling Area. In 1950, the disequilibrium in Canada's current account with this group almost disappeared, the current surplus amounting to only \$5,000,000 compared with a credit balance of \$574,000,000 in 1949, and a post-war record surplus of \$874,000,000 in 1947. In 1951, however, the credit balance was again substantial, rising to \$191,000,000. The current account surplus with the United Kingdom accounted for the largest absolute changes, declining from \$439,000,000 in 1949 to \$28,000,000 in 1950 and rising to \$220,000,000 in 1951. For the rest of the Sterling Area the current account surplus of \$135,000,000 in 1949 changed to deficits of \$23,000,000 and \$29,000,000 in 1950 and 1951, respectively.

The most important factor leading to the virtual disappearance of the surplus in 1950 was the large decrease in exports, about a half of which resulted from lower wheat shipments to the United Kingdom, although forest products and non-ferrous metals also fell significantly. In the case of other Sterling Area countries, lower exports of Canadian manufactured goods were particularly notable. The devaluations of 1949 and import restrictions on purchases in the dollar area were two of the factors at work here. While exports fell, Canadian imports from the Sterling Area rose, owing primarily to larger imports of metal products from the United Kingdom, and particularly the impressive increase in the volume of imports of British automobiles. A large increase in imports from other Sterling Area countries also occurred in 1950, owing partly to conspicuous increases in sterling prices of some commodities purchased by Canada from these countries. The balance of receipts from non-merchandise transactions with the Sterling Area declined. Lower receipts of inheritances and of immigrant funds, and lower freight and shipping receipts because of a decrease in exports, were the main factors in this connection.

One of the principal means of financing the large current account surpluses with the Sterling Area in earlier post-war years was the drawings on the 1946 loan to the United Kingdom. These drawings were reduced to \$50,000,000 in 1950. The United Kingdom made a repayment of some \$42,000,000 on the loan of \$700,000,000 extended in 1942, and a repayment of \$9,100,000 on the wartime loan from the Government of Newfoundland. With respect to private capital movements, there were repurchases by Canadians of Canadian securities amounting to some \$35,000,000, and redemptions of \$18,000,000. In 1950, there occurred also a significant outflow from Canada of capital connected mainly with changing positions of short-term commercial indebtedness.

In 1951, repayment by the United Kingdom consisted of the first instalment of \$14,000,000 on the post-war loan of 1946 and \$33,800,000 on the war loan of 1942. The amount outstanding on the post-war loan was reduced to \$1,171,000,000, while the war loan of \$700,000,000 was reduced to approximately \$222,700,000. Redemptions of Canadian securities, owned mainly in the United Kingdom, were \$24,000,000, and repurchases \$16,000,000. There were, however, some new issues for refinancing purposes. In contrast to 1950, multilateral settlements of \$174,000,000 once more became important, as they were in 1946 to 1949 when large current surpluses existed in Canada's transactions with the Sterling Area.

Capital inflows for direct investment by British businesses in Canadian branches and subsidiaries amounted to \$19,000,000 and \$28,000,000 in 1950 and 1951, respectively. These balance of payments transfers exclude reinvested earnings. In 1950, the value of all British direct investments in Canada increased by about \$40,000,000 to a total value of \$447,000,000.

Transactions with the United States.—In 1950, the current deficit with the United States was considerably reduced, declining from \$589,000,000 in 1949 to \$403,000,000 in 1950. The chief reason was a rise of exports to the United States, which reached an unprecedented 65 p.c. of all Canadian exports. Part of the tremendous rise in exports of \$525,000,000 was offset by an increase in imports of \$194,000,000, and by substantially larger net payments to the United States on all other current items that rose by \$145,000,000.

About \$300,000,000 of the increase in the value of exports in 1950 was concentrated in the forest-products group, particularly in lumber exports. Non-ferrous metals, and animals and products also showed important increases. The volume of imports was up sharply in the closing months of 1950, spurred by high levels of Canadian prosperity and development and a general desire to secure commodities while they were still available. With respect to invisible items, non-monetary gold available for export rose over 1949. Net receipts on tourist account declined, however, and net payments for other accounts increased. Income payments to the United States reached a new peak of \$410,000,000, an increase of \$85,000,000 over 1949, almost all of which occurred in dividend payments.

In 1951, the current account deficit with the United States more than doubled, rising to \$955,000,000. The largest single change responsible for this deterioration was the rise in imports of \$755,000,000, or 36 p.c. The increase in value of exports was \$280,000,000, and that in the import balance was \$475,000,000. This was about ten times the size of the adjusted import balance in 1950 but still much less than the import balance of \$890,000,000 in 1947.

The increase in imports was widespread and closely related to high levels of defence activity, investment and consumption. A significant part of the increase seems to have been related to the inventory rise which was heavy when imports were at a peak. Almost a half of the increase resulted from greater imports of iron and products, although large increases occurred in textiles and non-ferrous metals and products. Most fuel imports fell slightly, while crude petroleum decreased a third. While the rise in imports was due primarily to volume, the increase in exports was, generally, a reflection of higher export prices.

The largest change in invisibles in 1951 was a sharp drop in net receipts on travel account from \$67,000,000 to \$9,000,000, being the third consecutive decrease on this account. A large rise in the travel expenditure of Canadians in the United States was the principal reason for this reduction in the balance of receipts and represented an increase in volume and in average expenditure. The number of visitors from the United States increased but average expenditure fell. The deficit with the United States on account of interest and dividends was reduced by \$39,000,000 to \$321,000,000, which was still much higher than in the years preceding 1950. The deficits on freight and shipping account and on all other current transactions rose in 1951, as they had in the previous year.

Most of the capital movements which featured Canada's accounts in 1950 and 1951 were those arising from the predominant movement of capital from the United States to Canada (*see* p. 977). The net inflow of capital from the United

States of \$560,000,000 in 1951 compared with \$960,000,000 in 1950 and only \$47,000,000 in 1949. Relatively more of the net inflow of capital in 1951 was in types of movement which usually represent long-term investment in Canada, such as direct investments and new issues of securities floated in the United States. Large declines occurred in inflows for the acquisition of outstanding domestic securities and short-term movements. Because of these capital inflows, and also because of such items as reinvested earnings which are not included in the balance of payments, the value of United States investment in Canada increased in 1950 by \$670,000,000, and a provisional estimate for 1951 indicates another increase of comparable size.

Transactions with Other Countries.—The current account surplus with non-sterling area OEEC* countries, mainly in Western Europe, fell by \$78,000,000 to \$109,000,000 in 1950, but increased sharply to \$220,000,000 in 1951. The same trend was apparent in transactions with the remaining countries in this group—a surplus of \$15,000,000 in 1949 becoming a deficit of \$40,000,000 in 1950 and a surplus of \$20,000,000 in 1951.

A large part of the rise in exports in 1951 was in food and raw materials to the OEEC countries. About one-third of Canadian exports to Europe in 1951 consisted of wheat and flour. Imports from the European Continent showed a striking increase in rolling-mill products. An outstanding development in trade in 1951 was the rise in exports to Japan, which were three times the 1950 value. Trade with Latin America increased in both 1950 and 1951.

Capital transactions with other overseas countries in 1951 included receipt of \$20,000,000 principal on Canadian export credits. Net sales of outstanding Canadian securities were \$34,000,000 compared with \$1,000,000 in 1950 and were made mainly to Switzerland. In 1951 there was an outflow from Canada of \$16,000,000, principally in connection with Canadian enterprises in Latin America. In the same year, \$9,000,000 was received from those countries for direct investment in Canada.

* Organization for European Economic Co-operation.

1.—Current Account between Canada and All Countries, 1928-51

(Net Credits=+; Net Debits=-)

(Millions of Canadian Dollars)

Year	Current Receipts	Current Expenditure	Net Balance on Current Account	Year	Current Receipts ¹	Current Expenditure ²	Net Balance	Mutual Aid and Other Official Contributions in Current Account	Net Balance on Current Account
1928....	1,788	1,820	-32	1942.....	3,376	2,275	+1,101	-1,002	+99
1929....	1,646	1,957	-311	1943.....	4,064	2,858	+1,206	-518	+688
1930....	1,297	1,634	-337	1944.....	4,557	3,539	+1,018	-960	+58
1931....	972	1,146	-174	1945.....	4,456	2,910	+1,546	-858	+688
1932....	808	904	-96	1946.....	3,365	2,905	+460	-97	+363
1933....	829	831	-2	1947.....	3,746	3,661	+85	-38	+47
1934....	1,020	952	+68	1948.....	4,147	3,676	+471	-19	+452
1935....	1,145	1,020	+125	1949.....	4,077	3,890	+187	—	+187
1936....	1,430	1,186	+244	1950.....	4,300	4,572	-272	-57	-329
1937....	1,593	1,413	+180	1951.....	5,341	5,700	-359	-165	-524
1938....	1,361	1,261	+100						
1939....	1,457	1,331	+126						
1940....	1,776	1,627	+149						
1941....	2,458	1,967	+491						

¹ Includes Mutual Aid exports.

² Excludes Mutual Aid offsets.

2.—Geographical Distribution of the Balance on Current Account between Canada and Other Countries, 1928-51

NOTE.—In the years 1942-48 balances include exports of currently produced goods provided as Mutual Aid or Official Contributions. (See also Table 1.)

(Net Credits=+; Net debits=—.)

(Millions of Canadian Dollars)

Year	United Kingdom ¹	Other Overseas Countries ²	United States ³	All Countries	Year	United Kingdom ¹	Other Overseas Countries ²	United States ³	All Countries
1928.....	-21	+338	-349	-32	1940.....	+343	+98	-292	+149
1929.....	-99	+225	-437	-311	1941.....	+734	+75	-318	+491
1930.....	-106	+113	-344	-337	1942.....	+1,223	+58	-180	+1,101
1931.....	-54	+85	-205	-174	1943.....	+1,149	+76	-19	+1,206
1932.....	-14	+86	-168	-96	1944.....	+746	+241	+31	+1,018
1933.....	+26	+85	-113	-2	1945.....	+747	+763	+36	+1,546
1934.....	+46	+102	-80	+68	1946.....	+500	+567	-607	+460
1935.....	+62	+92	-29	+125	1947.....	+633	+587	-1,135	+85
1936.....	+122	+123	-1	+244	1948.....	+486	+378	-393	+471
1937.....	+135	+122	-77	+180	1949 ^a	+439	+337	-589	+187
1938.....	+127	+122	-149	+100	1950.....	+28	+46	-403	-329
1939.....	+137	+105	-116	+126	1951.....	+220	+211	-955	-524

¹ Excludes wheat exports diverted to other overseas countries, and exports of gold.

estimated value of wheat sold in European countries.

² Includes

³ Includes all net exports of non-monetary gold.

3.—Balance of International Payments between Canada and All Countries, 1946-51

(Millions of Canadian Dollars)

Item	1946	1947	1948	1949	1950	1951 ^a
A. CURRENT CREDITS—						
Merchandise exports (adjusted).....	2,393 ¹	2,723 ¹	3,030 ¹	2,989 ¹	3,139	3,950
Official contributions.....	—	—	—	—	57	165
Net exports of non-monetary gold.....	96	99	119	139	163	150
Tourist and travel expenditure.....	221	251	279	286	275	271
Interest and dividends.....	70	62	70	83	91	115
Freight and shipping.....	311	322	336	303	284	337
All other current credits.....	274	289	313	277	291	353
TOTALS, CURRENT CREDITS.....	3,365	3,746	4,147	4,077	4,300	5,341
B. CURRENT DEBITS—						
Merchandise imports (adjusted).....	1,822	2,535	2,598	2,696	3,129	4,103
Tourist and travel expenditure.....	135	167	133	192	226	280
Interest and dividends.....	312	337	325	390	474	447
Freight and shipping.....	219	278	279	253	301	347
Official contributions.....	97	38	19	—	57	165
All other current debits ²	417	344	341	359	442	523
TOTALS, CURRENT DEBITS.....	3,002	3,699	3,695	3,890	4,629	5,865
C. NET BALANCE ON CURRENT ACCOUNT.....	+363	+47	+452	+187	-329	-524
D. CAPITAL TRANSACTIONS—						
Net new issues or retirements of Canadian securities held abroad.....	-321	-269	+36	-42	-73	+227
Direct investment in Canada.....	+40	+61	+71	+94	+221	+296
Net sales or purchases of outstanding securities..	+215	-15	-7	+26	+396	+50
Loans and Advances by Government of Canada—						
Loan of 1946 to United Kingdom.....	-540	-423	-52	-120	-50	+14
Post-war loans to other countries.....	-210	-140	-74	+13	+23	+20
Repayments on War loans to United Kingdom..	+89	+104	+64	+5	+51	+34
Change in Canadian dollar holdings of foreigners..	+70	-26	-21	+40	+235	-192
Other capital movements ³	+43	-82	+27	-69	+220	+114
NET MOVEMENT OF CAPITAL EXCLUSIVE OF CHANGE IN OFFICIAL HOLDINGS OF GOLD AND U.S. DOLLARS	-614	-790	+44	-53	+1,023	+563
E. CHANGE IN OFFICIAL HOLDINGS.....	-251	-743	+496	+134	+694	+39

¹ Includes official contributions in kind, in 1946.

³ Includes errors and omissions.

² Includes \$104,000,000 of Canadian overseas expenditure

4.—Current Account Transactions between Canada and the United Kingdom, 1946-51

(Millions of Canadian Dollars)

Item	1946	1947	1948	1949	1950	1951 ^p
A. CURRENT RECEIPTS—						
Merchandise exports (adjusted).....	623	749	703	701	469	636
Travel expenditure.....	3	7	9	11	7	8
Interest and dividends.....	7	8	9	9	6	30
Freight and shipping.....	107	114	105	89	61	88
All other current receipts ¹	97	89	96	80	52	61
TOTALS, CURRENT RECEIPTS.....	840	967	922	890	595	823
B. CURRENT PAYMENTS—						
Merchandise imports (adjusted).....	138	182	287	300	399	417
Travel expenditure.....	3	9	12	17	19	20
Interest and dividends.....	54	53	50	55	55	59
Freight and shipping.....	32	32	34	32	36	43
All other current payments ²	113	58	53	47	58	64
TOTALS, CURRENT PAYMENTS.....	340	334	436	451	567	603
C. CURRENT ACCOUNT BALANCE.....	+500	+633	+486	+439	+28	+220

¹ Includes \$18,000,000 for war services in 1946.
\$73,000,000 in 1946.² Includes Canadian overseas expenditure of

5.—Current Account Transactions between Canada and United States, 1946-51

(Millions of Canadian Dollars)

Item	1946	1947	1948	1949	1950	1951 ^p
A. CURRENT RECEIPTS—						
Merchandise exports (adjusted).....	948	1,061	1,508	1,521	2,046	2,326
Net exports of non-monetary gold.....	96	99	119	139	163	150
Travel expenditure.....	216	241	267	268	260	255
Interest and dividends.....	47	35	37	40	50	57
Freight and shipping.....	101	104	131	126	157	164
All other current receipts.....	159	171	185	170	199	245
TOTALS, CURRENT RECEIPTS.....	1,567	1,711	2,247	2,264	2,875	3,197
B. CURRENT PAYMENTS—						
Merchandise imports (adjusted).....	1,378	1,951	1,797	1,899	2,093	2,848
Travel expenditure.....	130	152	113	164	193	246
Interest and dividend.....	250	274	267	325	410	378
Freight and shipping.....	169	221	213	193	240	276
All other current payments.....	247	248	250	272	342	404
TOTALS, CURRENT PAYMENTS.....	2,174	2,846	2,640	2,853	3,278	4,152
C. CURRENT ACCOUNT BALANCE.....	-607	-1,135	-393	-589	-403	-955

6.—Capital Transactions between Canada and the United States¹, 1949-51

(Millions of Canadian Dollars)

Item	1949	1950	1951 ^p
A. CURRENT ACCOUNT BALANCE.....	-589	-403	-955
B. CAPITAL ACCOUNT—			
New issues of Canadian securities.....	+105	+210	+404
Retirements of Canadian securities.....	-136	-263	-159
Net Trade in Outstanding Securities—			
Canadian securities.....	+25	+362	+20
Foreign securities.....	+15	+66	+15
Direct investments in Canada.....	+84	+199	+259
Canadian direct investments abroad.....	+16	+41	-4
Change in Canadian dollar holdings of foreigners.....	-8	+91	-53
Other capital movements ²	-54	+254	+78
NET CAPITAL MOVEMENT.....	+47	+960	+560
Balance settled by exchange transfers.....	+676	+137	+434
C. CHANGE IN OFFICIAL HOLDINGS OF GOLD AND U.S. DOLLARS.....	+134	+694	+39

¹ Includes some capital transactions on account of "other overseas countries", and omissions.² Includes errors

Section 2.—Travel Between Canada and Other Countries

Travel expenditure constitutes an important item in Canada's commercial and financial transactions with other countries. A substantial credit balance has customarily arisen from travel between Canada and the United States and a small debit balance from travel with other countries. The credit balance with the United States has played an important part in assisting Canada to meet its current obligations in that country and during the past 25 years it has totalled almost \$2,000,000,000, a large part of which has been applied against a debit balance in commodity trade with the United States. During the same period, Canada's debit balance arising out of travel with countries, other than the United States, amounted to little more than \$150,000,000; thus the overall favourable balance with all countries during the past 25 years was over \$1,750,000,000.

In past years, Canada's annual credit balance from international travel has ranged from a minimum of \$45,000,000 in 1933 to a maximum of \$145,000,000 in 1948. The high level of the balance in 1948 was owing largely to reduced debits brought about by the emergency exchange conservation measures and withdrawal of these restrictions in subsequent years left Canadian travel freer to expand. In each year since 1948 Canadians have gone to other countries in ever increasing numbers until, in 1951, their expenditure was more than double the 1948 level. During the same period, expenditure in Canada by visitors from other countries has remained fairly stable. Thus, the overall credit balance was reduced from \$145,000,000 in 1948 to \$92,000,000 in 1949 and \$49,000,000 in 1950, and was replaced in 1951 by a small debit balance of \$6,000,000. Travel with the United States alone, in 1951, resulted in a credit balance of \$12,000,000, whereas from 1950 to 1926 the annual credit balance with the United States was never less than \$50,000,000.

Although there was only a small difference in 1951 between incoming and outgoing expenditure on travel, the number of visits to Canada by non-residents was 34 p.c. greater than the number of visits by Canadians to other countries. Hence, the average visit by a Canadian to a foreign country takes more money out of the country than is brought in by the average visit of a non-resident to Canada. In 1951, the average expenditure rate per traveller for visits lasting longer than 48 hours was \$85* for Canadians visiting the United States against \$53* for U.S.A. residents visiting Canada. Even on short visits of 48 hours or less the average Canadian traveller spent more than the average U.S.A. visitor but the difference was less pronounced. If the population of the two countries is taken into consideration, total Canadian travel expenditure in the United States in 1951 amounted to almost \$17.50 per capita whereas United States expenditure in Canada was only about \$1.70 per capita.

United States Travel Expenditure in Canada.—The number of visits to Canada in 1951 by residents of the United States, including repeat visits, was 24,900,000. This was more than the volume of traffic in each of the two preceding years and was exceeded only by the record volume of 25,100,000 in 1948. Despite the increase in the number of visits, travel expenditure in Canada by residents of the United States was slightly lower in 1951 than in the previous year. The decrease was only 1 p.c.—from \$260,000,000 in 1950 to \$258,000,000 in 1951. Travel receipts from the United States have been at a consistently high level throughout

* Rates inclusive of children and of persons visiting friends or relatives; rates restricted to adults using hotels or other accommodation would be materially higher.

the four years 1948 to 1951, changes from year to year being of a minor nature. Receipts in each of these years have surpassed those of any other year on record by a margin of \$17,000,000 or more. A large part of this gain, of course, was owing to higher prices. United States travel expenditure adjusted for changes in price levels as reflected in the Canadian cost-of-living index reached a peak in 1947 and declined moderately in each succeeding year.

The decline in spending by United States visitors in 1951, accompanied by a gain in the number of visits, indicates lower average spending per visit, which may be due to shorter visits or lighter spending per day or a combination of the two. With regard to non-automobile traffic there appears to have been little change in the length of visit but average expenditure per day was 6 p.c. lower than in 1950. There has been a tendency for motorists to make shorter visits during recent years. If special groups such as summer residents and commuters are excepted there has been a decline of 16 p.c. between 1947 and 1951 in the average length of stay of motorists entering the country on customs permits. Much of this decline has occurred in Ontario where each year in-transit traffic accounts for a substantial part of the total number of entries. During recent years in-transit motorists have formed a steadily increasing proportion of the total number of entries into that Province.

Canadian Travel Expenditure in the United States.—Canadian travellers spent \$246,000,000 in the United States in 1951—more than three and a half times the amount spent before 1939. Most of the increase of \$53,000,000 in 1951 over 1950 can be attributed to motorists travelling to the United States in greater numbers and staying for longer visits than in the previous year. Their expenditure of \$94,000,000 showed a gain of \$27,000,000. Canadian shopping in the United States was an important item in the spending of motorists—purchases declared under the \$100 customs exemption, at \$47,000,000 in 1951, being 43 p.c. higher than in 1950.

Non-automobile travellers to the United States were 4 p.c. more numerous in 1951 than in 1950 and their expenditure rose by 21 p.c. The greatest contribution was made by train traffic which increased by \$11,000,000. Substantial gains were also made by air and bus traffic and a smaller increase by boat traffic.

Travel Between Canada and Overseas Countries.—The volume of travel between Canada and overseas countries is, normally, less than 1 p.c. of that between Canada and the United States. Overseas travellers, however, stay for longer visits and transportation costs are higher, hence their expenditure is more significant than the number of travellers might suggest. The sum of debits and credits in Canada's overseas travel in 1951 amounted to \$50,000,000, or 10 p.c. of travel expenditure between Canada and the United States. In contrast to travel with the United States which has produced an annual credit balance for 25 years or more, travel with overseas countries results generally in a debit balance. In 1951, the balance stood at \$18,000,000—unchanged from 1950 which was the highest on record.

The number of visitors arriving directly from overseas countries in 1951 was 18,200. These were supplemented by an estimated 16,000 arriving from overseas countries via the United States. Expenditure of both groups, at \$16,000,000, was 7 p.c. higher than the 1950 total of \$15,000,000. Canadian travel expenditure in overseas countries in 1951, totalled \$34,000,000. The number of Canadian residents returning via Canadian ports was 44,200, an increase of 1 p.c. over the

corresponding figure in 1950. Canadian travellers visiting overseas countries via the United States are estimated at 11,000, resulting in a total of 55,200 travellers via Canadian and United States ports.

7.—Expenditure of Foreign Travellers in Canada and Canadian Travellers Abroad, 1950 and 1951

Class of Traveller	1950			1951		
	Foreign Expenditure in Canada	Canadian Expenditure Abroad	Excess of Foreign Expenditure in Canada	Foreign Expenditure in Canada	Canadian Expenditure Abroad	Excess of Foreign Expenditure in Canada
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Travellers from and to overseas countries	15,000	33,000	-18,000	16,000	34,000	-18,000
Travellers from and to the United States—						
Automobile.....	148,100	67,340	+80,760	151,600	93,876	+57,724
Rail.....	43,500	47,026	-3,526	43,600	58,258	-14,658
Boat.....	13,700	3,450	+10,250	10,500	3,905	+6,595
Bus (exclusive of local bus).....	20,800	42,028	-21,228	17,700	48,793	-31,093
Aircraft.....	21,400	13,800	+7,600	22,200	22,113	+87
Other (pedestrians, local bus, etc.).....	12,200	19,097	-6,897	12,400	19,000	-6,600
Totals, United States.....	259,700	192,741	+66,959	258,000	245,945	+12,055
Totals, All Countries.....	274,700	225,741	+48,959	274,000	279,945	-5,945

8.—Summary of Highway Traffic at Canadian Border Points, by Provinces, 1950 and 1951

Province or Territory	FOREIGN VEHICLES INWARD					
	Non-Permit Class Local Traffic		Travellers' Vehicle Permits		Commercial Vehicles	
	1950	1951	1950	1951	1950	1951
	No.	No.	No.	No.	No.	No.
Atlantic Provinces.....	865,466	890,596	143,265	151,219	79,272	84,394
Quebec.....	276,231	287,628	374,246	384,156	44,238	45,307
Ontario.....	3,378,024	3,670,008	1,236,290	1,343,083	112,825	108,366
Manitoba.....	54,119	65,060	26,315	35,480	4,505	6,990
Saskatchewan.....	20,755	21,390	15,715	16,786	5,521	4,769
Alberta.....	19,717	17,029	35,812	37,454	3,862	3,924
British Columbia.....	95,722	105,542	221,642	247,801	10,980	14,707
Yukon Territory.....	1,192	992	1,863	3,622	366	333
Totals.....	4,711,226	5,058,243	2,060,148	2,219,601	261,569	268,790
Percentage increase, 1951 over 1950.....	+7.4		+7.7		+2.8	
CANADIAN VEHICLES RETURNING						
	After Stay of 24 Hours or Less		After Stay of Over 24 Hours		Commercial Vehicles	
	1950	1951	1950	1951	1950	1951
	No.	No.	No.	No.	No.	No.
Atlantic Provinces.....	741,496	902,396	21,007	28,780	76,553	83,786
Quebec.....	368,932	457,655	77,137	109,660	49,802	61,866
Ontario.....	837,120	1,177,829	161,855	219,886	71,948	118,984
Manitoba.....	67,026	88,115	21,573	32,649	6,360	12,424
Saskatchewan.....	32,989	41,741	16,719	20,929	7,586	10,396
Alberta.....	27,725	25,868	20,953	19,451	5,447	7,000
British Columbia.....	289,452	351,087	88,644	107,313	21,533	23,609
Yukon Territory.....	42	10	7	20	29	15
Totals.....	2,354,782	3,044,701	397,895	538,688	239,258	318,080
Percentage increase, 1951 over 1950.....	+29.3		+35.4		+32.9	

Tourist Information.—Tourist information generally is supplied by the Canadian Government Travel Bureau, Ottawa, while detailed information on the National Parks and Historic Sites may be obtained from the Department of Resources and Development, Ottawa. For advice regarding specific provinces or particular cities or resorts, the tourist may apply to the provincial or municipal bureau of information concerned. (*See* under 'Tourist Trade', Directory of Sources of Official Information, Chapter XXVIII.)

PART IV.—THE GOVERNMENT AND FOREIGN TRADE

Section 1.—Foreign Trade Service and Associated Agencies Concerned with the Development of Foreign Trade*

Foreign trade contributes substantially to the welfare and prosperity of Canadians, owing largely to the fact that the productive capacity of Canada is greater than the ability of its population to consume the output of farms, factories, forests, fisheries and mines. Every effort is made, therefore, to establish and maintain close commercial relations with other countries whose markets are essential to the Canadian economy. It is appreciated, however, that two-way trade should be encouraged in order that goods and services may be accepted in partial payment for the products Canada is in a position to export. Furthermore, many commodities that are not indigenous to this country have to be imported from abroad. Some of these are required for Canadian industrial processes and others may be classed as consumer goods necessary for the maintenance of a high standard of living.

Although many private firms have established connections in other countries that enable them to maintain a steady flow of goods in either direction, others require the assistance of government agencies in finding markets or sources of supply. Import and export controls, imposed by many countries for a variety of reasons, together with post-war foreign exchange difficulties, present problems that no single firm or even an association of manufacturers, exporters or importers, can solve without assistance from government representatives.

The Department of Trade and Commerce and associated agencies are at the disposal of exporters and importers engaged directly in the development of Canada's commercial relations with other countries. Services obtainable from the various branches, divisions and agencies are described as follows:—

Canadian Trade Commissioner Service.—The Canadian Trade Commissioner Service is one of the important instruments in the continuous effort to increase Canadian international trade, to give world-wide distribution to Canadian products and to locate the best sources of supply for imports. With headquarters at Ottawa, the Service maintains in 40 countries 49 offices, staffed with trained Canadian trade officials and commodity specialists. The work of the Trade Commissioners in the field is co-ordinated at Ottawa by four Area Trade Officers. These officers are familiar with every aspect of foreign trade in their geographical or political areas and are responsible to the Director of the Service for the collection, preparation and presentation of information on all trade matters in their respective territories.

Trade Commissioners bring together exporters and importers of Canada and other countries. They study potential markets for specific Canadian products and report on the exact kind of goods in demand, competitive conditions, trade and

* Prepared in the several branches and divisions concerned and collated in the Information Branch, Department of Trade and Commerce, Ottawa.

exchange regulations, tariffs, shipping and packaging requirements, labelling, etc. Inquiries for Canadian goods are passed to the Department at Ottawa or directly to interested Canadian firms. For the Canadian importer, Trade Commissioners seek sources of supply of a wide variety of goods and, where necessary, furnish information on the Canadian market to the foreign exporter. The preparation of economic and other reports for departmental use is an important activity for the Trade Commissioner while much attention is given to the dissemination of information on the Canadian International Trade Fair, securing exhibitors and encouraging the visits of foreign buyers. Assistance is also given to Canadian exhibitors at overseas trade fairs and a constant liaison is maintained with foreign government trade departments.

In countries where Canada maintains a diplomatic mission as well as a trade office, Trade Commissioners form an integral part of the mission and assume the title of Commercial Counsellor or Commercial Secretary. In some foreign countries they act as Consuls General, Consuls or Vice-Consuls, according to their status as Foreign Service Officers.

In order to provide Canadian manufacturers, exporters and importers with up-to-date information concerning their territories more effectively than is possible by correspondence, tours of Canadian industrial centres are arranged for Trade Commissioners from time to time. Such direct contacts enable specific problems to be discussed and, at the same time, serve to bring into focus for the Trade Commissioner the Canadian industrial picture as a whole. He thus returns to his post with a knowledge of current Canadian conditions and in a better position to assist in the development and extension of Canadian trade opportunities.

Following is a list of Foreign Trade Service representatives abroad, as at Nov. 15, 1952:—

FOREIGN TRADE SERVICE REPRESENTATIVES ABROAD

ARGENTINA.—C. S. Bissett, Commercial Secretary, Canadian Embassy, Bartolomé Mitré 478, Buenos Aires. Territory includes Paraguay and Uruguay.

AUSTRALIA.—C. M. Croft, Commercial Counsellor for Canada, City Mutual Life Bldg., 60 Hunter Street, Sydney, N.S.W.
R. W. Blake, Commercial Secretary for Canada and Agricultural Secretary, 83 William Street, Melbourne.

BELGIAN CONGO.—W. Gibson-Smith, Canadian Government Trade Commissioner, Forecom Building, Leopoldville. Territory includes Angola and French Equatorial Africa.

BELGIUM.—T. J. Monty, Commercial Secretary, Canadian Embassy, 35 rue de la Science, Brussels. Territory includes Luxembourg.

BRAZIL.—C. R. Gallow, Commercial Secretary, Canadian Embassy, Edifício Metropole, Ave. Presidente Wilson 165, Rio de Janeiro.
C. J. Van Tighem, Consul of Canada and Trade Commissioner, Canadian Consulate, Edifício Alois, Rua 7 de Abril 252, São Paulo.

CEYLON.—Paul Sykes, Canadian Government Trade Commissioner, Galle Face Hotel, Colombo.

CHILE.—M. R. M. Dale, Commercial Secretary, Canadian Embassy, Bank of London and South America Building, Santiago.

COLOMBIA.—W. J. Millyard, Commercial Secretary, Canadian Embassy, Calle 19, No. 6-39, Bogota. Territory includes Ecuador.

CUBA.—A. W. Evans, Commercial Secretary, Canadian Embassy, Calle Infanta 16, Havana.

FOREIGN TRADE SERVICE REPRESENTATIVES ABROAD—continued

- DOMINICAN REPUBLIC.—R. E. Gravel, Canadian Government Trade Commissioner, Edificio Copello 410, Calle el Conde, Ciudad Trujillo. Territory includes Haiti and Puerto Rico.
- EGYPT.—Acting Canadian Government Trade Commissioner, Osiris Building, Sharia Walda, Kasr-el-Doubara, Cairo. Territory includes Aden, Anglo-Egyptian Sudan, Cyprus, Ethiopia, Hashemite Kingdom of the Jordan and Saudi Arabia.
- FRANCE.—R. G. C. Smith, Commercial Counsellor for Canada, 3 rue Scribe, Paris. Territory includes Algeria, French Morocco, French West Africa and Tunisia.
- GERMANY.—B. A. Macdonald, Commercial Counsellor, Canadian Embassy, 22 Zitellmannstrasse, Bonn.
- GREECE.—H. W. Richardson, Commercial Secretary, Canadian Embassy, 31 Vassillissis Sophias Ave., Athens. Territory includes Israel and Turkey.
- GUATEMALA.—J. C. Depocas, Canadian Government Trade Commissioner, 28, 5a Avenida Sud, Guatemala City. Territory includes Costa Rica, El Salvador, Honduras, Nicaragua, Panama and Canal Zone.
- HONG KONG.—T. R. G. Fletcher, Canadian Government Trade Commissioner, Hong Kong and Shanghai Banking Corporation Building, Hong Kong. Territory includes Indo-China, Macao and Taiwan.
- INDIA.—Richard Grew, Commercial Counsellor, Office of the High Commissioner for Canada, 4 Aurangzeb Road, New Delhi.
B. I. Rankin, Commercial Secretary for Canada, Gresham Assurance House, Mint Road, Bombay. Territory includes Burma.
- IRELAND.—T. Grant Major, Commercial Secretary for Canada, 66 Upper O'Connell Street, Dublin.
- ITALY.—S. G. MacDonald, Commercial Secretary, Canadian Embassy, Via Saverio Mercadante 15, Rome. Territory includes Libya, Malta and Yugoslavia.
- JAMAICA.—M. B. Palmer, Canadian Government Trade Commissioner, Canadian Bank of Commerce Chambers, Kingston. Territory includes Bahamas and British Honduras.
- JAPAN.—J. C. Britton, Commercial Secretary, Canadian Embassy, Tokyo. Territory includes Korea.
- LEBANON.—G. F. G. Hughes, Canadian Government Trade Commissioner. Territory includes Iraq and Syria.
- MEXICO.—M. T. Stewart, Commercial Secretary, Canadian Embassy, Edificio Internacional, Paseo de la Reforma, Mexico, D.F.
- THE NETHERLANDS.—J. A. Langley, Commercial Counsellor, Canadian Embassy, Sophialaan 1-A, The Hague.
- NEW ZEALAND.—L. S. Glass, Commercial Counsellor, Office of the High Commissioner for Canada, Government Life Insurance Building, Wellington. Territory includes Fiji and Western Samoa.
- NORWAY.—J. L. Mutter, Commercial Secretary, Canadian Legation, Fridtjof Nansens Plass 5, Oslo. Territory includes Denmark and Greenland.
- PAKISTAN.—A. P. Bissonnet, Commercial Secretary, Office of the High Commissioner for Canada, Hotel Metropole, Victoria Road, Karachi. Territory includes Afghanistan and Iran.
- PERU.—H. J. Horne, Acting Commercial Secretary, Canadian Embassy, Edificio Boza, Carabaya 831, Plaza San Martin, Lima. Territory includes Bolivia.
- PHILIPPINES.—F. H. Palmer, Consul General of Canada and Trade Commissioner, Tuason Building, 8-12 Escolta, Binondo, Manila.
- PORTUGAL.—L. M. Cosgrave, Commercial Counsellor, Canadian Legation, Avenida de Praia da Vitoria 48-1º D, Lisbon. Territory includes The Azores and Madeira.

FOREIGN TRADE SERVICE REPRESENTATIVES ABROAD—continued

- SINGAPORE.—D. S. Armstrong, Canadian Government Trade Commissioner, Room D-5, Union Building, Singapore. Territory includes Brunei, Federation of Malaya, Indonesia, North Borneo, Sarawak and Thailand.
- SOUTH AFRICA.—C. B. Birkett, Canadian Government Trade Commissioner, Mutual Building, Harrison Street, Johannesburg. Territory includes Southern Rhodesia, Northern Rhodesia, Nyasaland, Portuguese East Africa, Kenya, Tanganyika, Uganda and Zanzibar.
K. F. Noble, Canadian Government Trade Commissioner, Grand Parade Centre Building, Adderley Street, Cape Town. Territory includes South-West Africa, Mauritius and Madagascar.
- SPAIN.—E. H. Maguire, Canadian Government Trade Commissioner, 70 Avenida Jose Antonio, Madrid. Territory includes Balearic Islands, Canary Islands, Gibraltar, Rio de Oro, Spanish Morocco and Tangier.
- SWEDEN.—F. W. Fraser, Commercial Secretary, Canadian Legation, Strandvagen, 7-C, Stockholm. Territory includes Finland.
- SWITZERLAND.—Yves Lamontagne, Commercial Counsellor, Canadian Legation, Thunstrasse 95, Berne. Territory includes Austria, Czechoslovakia and Hungary.
- TRINIDAD.—P. V. McLane, Canadian Government Trade Commissioner, Colonial Building 72 South Quay, Port-of-Spain. Territory includes Barbados, Windward and Leeward Islands, British Guiana, Dutch Guiana, French Guiana and French West Indies.
- UNITED KINGDOM.—R. P. Bower, Commercial Counsellor, Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.
R. Campbell Smith, Commercial Secretary, Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1. Territory includes Iceland and British West Africa (Gambia, Gold Coast, Nigeria and Sierra Leone).
M. J. Vechslor, Canadian Government Trade Commissioner, Martins Bank Building, Water Street, Liverpool.
T. Grant Major, Canadian Government Trade Commissioner, 36 Victoria Square, Belfast. Territory includes Northern Ireland.
- UNITED STATES.—J. H. English, Commercial Counsellor, Canadian Embassy, 1746 Massachusetts Ave., N.W., Washington, D.C.
A. E. Bryan, Deputy Consul General of Canada and Trade Commissioner, Canadian Consulate General, 620 Fifth Avenue, New York City.
G. S. Patterson, Consul General of Canada, Canadian Consulate General, 532 Little Building, 80 Boylston Street, Boston 16.
D. S. Cole, Consul General of Canada, Canadian Consulate General, Chicago Daily News Building, 400 West Madison Street, Chicago.
B. C. Butler, Consul of Canada and Trade Commissioner, Canadian Consulate, 1035 Penobscot Building, Detroit 26.
V. E. Duclos, Canadian Government Trade Commissioner, 510 West Sixth Street, Los Angeles.
G. A. Newman, Consul of Canada and Trade Commissioner, Canadian Consulate, 201 International Trade Mart, New Orleans.
Acting Consul General of Canada, Canadian Consulate General, 3rd Floor, Kohl Building, 400 Montgomery Street, San Francisco.
- VENEZUELA.—J. A. Stiles, Consul of Canada and Trade Commissioner, Canadian Consulate General, Edificio Pan American, Puente Urapal, Caracas. Territory includes Netherlands Antilles.

AGRICULTURAL REPRESENTATIVES

- ARGENTINA.—W. B. McCullough, Agricultural Secretary, Canadian Embassy, Bartolomé Mitre 478, Buenos Aires. Territory includes Paraguay and Uruguay.
- AUSTRALIA.—R. W. Blake, Agricultural Secretary for Canada, 83 William Street, Melbourne.
- GERMANY.—Wm. Van Vliet, Agricultural Secretary, Canadian Embassy, 22 Zitellmannstrasse, Bonn.
- ITALY.—Dr. C. F. Wilson, Agricultural Counsellor, Canadian Embassy, Via Saverio Mercadante 15, Rome.

FOREIGN TRADE SERVICE REPRESENTATIVES ABROAD—concluded

AGRICULTURAL REPRESENTATIVES—concluded

THE NETHERLANDS.—C. J. Small, Acting Agricultural Secretary, Canadian Embassy, Sophialaan 1-A, The Hague. Territory includes Belgium, Denmark and Luxembourg.

UNITED KINGDOM.—D. A. B. Marshall, Commercial Secretary (Agricultural), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.

UNITED STATES.—Dr. W. C. Hopper, Agricultural Counsellor, Canadian Embassy, 1746 Massachusetts Avenue, N.W., Washington, D.C.

VENEZUELA.—D. B. Laughton, Vice-Consul of Canada and Acting Agricultural Trade Commissioner, Canadian Consulate General, Edificio Pan American, Puente Urapal, Caracas. Territory includes Colombia.

FISHERIES REPRESENTATIVES

ITALY.—M. S. Strong, Commercial Secretary (Fisheries), Canadian Embassy, Via Saverio Mercadante 15, Rome.

JAMAICA.—E. M. Gosse, Canadian Trade Commissioner (Fisheries), Canadian Bank of Commerce Chambers, Kingston.

UNITED STATES.—M. B. Bursey, Consul of Canada and Trade Commissioner (Fisheries), Canadian Consulate General, 620 Fifth Avenue, New York City.

TIMBER REPRESENTATIVE

UNITED KINGDOM.—R. D. Roe, Commercial Secretary (Timber), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.

Commodities Branch.—Commodity trade promotion is the responsibility of the Commodities Branch. The Export and Import Divisions co-ordinate the work of the commodity specialists in the following sections: Automotive, Agricultural and Construction Equipment; Chemicals, Oils and Minerals; Imported Foods; Machinery and Metals; Textiles, Leather and Rubber; Wood and wood products, including newsprint; and a wide range of general products. The commodity officers specializing in these fields maintain contact with industry by personal visits and exchange of correspondence and with conditions abroad by communication with Canadian Government Trade Commissioners. The Export Division directs the attention of Trade Commissioners to supply conditions in Canada and, in turn, relays market news received from Trade Commissioners to Canadian manufacturers and exporters. Close attention is paid to opportunities for developing sales abroad of Canadian products and exporters are informed about regulations governing foreign trade. The Import Division obtains information on foreign supply conditions and directs the attention of Trade Commissioners to requirements in the Canadian market. This Division is concerned particularly with locating advantageous sources of supply of materials for manufactures and in promoting Canadian interests in international commodity markets.

Directories are maintained which include lists of Canadian manufacturers and other exporters, together with details of the products they are in a position to sell abroad and also lists of Canadian importing houses and details of their foreign connections and their interests in the import field. These directories are confidential and are supplied only to Canadian Government Trade Commissioners.

The function of the Transportation and Communications Division of the Branch is to facilitate, where necessary, the movement of merchandise from its point of origin to its ultimate destination. Active liaison is maintained with railways, steamship operators and agents, marine insurance companies, forwarding firms and

brokerage houses. New moves by foreign governments which affect the movement of Canadian goods, changes in rates and regulations established by private steamship companies and the pattern of Canada's foreign trade as related to its carrying services are all kept under constant review. The Division maintains a Canadian Trade Services Directory which contains information concerning Canadian customs requirements, invoicing, packaging, merchandising, forwarding facilities, steamship services, rail transportation and marketing data. This information enables the Trade Commissioners to obtain for Canada recognition as an organized market and to facilitate the establishment of closer working arrangements between Canadian firms and their foreign connections.

The Export and Import Permit Division is responsible for the administration of controls on the movement of scarce commodities and strategic materials subject to regulation under the powers of the Export and Import Permits Act. Control is exercised over the export of arms and munitions, implements of war, atomic energy materials and other strategic items. In collaboration with foreign governments, this Division also operates an import certificate and delivery verification procedure, instituted as an insurance against critically important shipments being diverted to undesirable destinations. The number and types of commodities under control change materially from time to time, reflecting the constant effort to remove restrictions as soon as the necessity for them disappears.

Agriculture and Fisheries Branch.—The section of the Commodities Branch engaged in trade promotional work on agricultural commodities, other than wheat and coarse grains, was established as a separate Branch in 1950. The Fisheries Section of the Commodities Branch and the Wheat and Grain Division were amalgamated with the new Agricultural Commodities Branch early in 1952, thus completing the centralization of the food and agricultural activities of the Department within the Agriculture and Fisheries Branch.

The primary function of the Agriculture and Fisheries Branch is to promote Canadian exports and imports of agricultural and fisheries products by assisting Canadian exporters in finding markets for their products abroad and in helping to locate sources of supply for products which Canadian importers wish to obtain from other countries. Canadian firms are given advice with respect to market conditions in other countries, competition to be met from other suppliers, import and exchange restrictions and related matters. In turn, Trade Commissioners are kept informed of production and price trends in Canada, products available for export and sources of supply.

In fish producing or importing countries, Trade Commissioners report to the Branch regularly on matters relating to fish. In addition, the four Fisheries Trade Commissioners located in important markets report on developments in those markets. This information is analysed and passed on to the industry and to provincial and federal government officials. Similarly, nine Agricultural Trade Commissioners located in important markets for Canadian agricultural products, or in countries which produce and export commodities competitive with Canada, report to the Branch on related economic conditions and agricultural developments in those countries. The information so received is analysed and made available to those interested. Reports by Trade Commissioners, in countries other than those covered by the Agricultural Trade Commissioners, are received from time to time and are handled in a like manner. Much of the material relating to agriculture and fisheries received from abroad is published in *Foreign Trade*.

Matters relating to Canada's grain trade are handled by the Wheat and Grain Division of the Branch. This Division assists foreign governments and other buyers in purchasing Canadian wheat, flour and other cereals, and serves as liaison between the Department of Trade and Commerce and the Canadian Wheat Board.

International Trade Relations Branch.—The International Trade Relations Branch is concerned with negotiations and consultations with other governments on matters affecting Canadian foreign trade policy and with the preparation of studies on international trade developments and the interpretation of the effect of these developments on the Canadian economy as a whole as well as on the domestic and foreign trade of Canada. This Branch compiles information on tariffs and customs regulations, foreign exchange and trade documentation of other countries for the use of Canadian exporters and other branches of the Government. A main function of the Branch is to analyse the foreign trade situation and the effects of changing foreign tariffs and customs practices in preparation for meetings of the General Agreement on Tariffs and Trade. The Branch co-operates with academic institutions and individuals engaged in commercial research.

Economics Division.—The Economics Division maintains a continuous review of business conditions in Canada. To do this, it is necessary to analyse foreign trade trends and to appraise their effect on economic development in Canada. Other aspects of the general economic situation considered include investment, consumption, production, prices, incomes and employment, as well as conditions in industries and localities.

The Industrial Development Division.—This Division co-ordinates the assistance offered by the Federal Government in the establishment of new industries in Canada. Acting in this capacity, the Division provides information on a multiplicity of matters pertaining to industry establishment and assists in solving the variety of particular problems that Canadian and foreign businessmen encounter.

The Division also aids those established firms that wish to expand into new lines of production. Inquiries from foreign firms and individuals regarding the manufacture of products in Canada under licence or royalty are screened and brought to the attention of Canadian manufacturers interested in producing additional items.

The Division acts in an advisory capacity to the Immigration Branch of the Department of Citizenship and Immigration regarding the admission of individuals, other than those from Commonwealth countries and the United States, who wish to establish new industries in Canada.

The Division works in close co-operation with a widespread network of organizations throughout Canada, including industrial development departments of the provinces, municipalities, railways, banks, power companies, chambers of commerce, boards of trade, and the Canadian Manufacturers' Association.

Information Branch.—The principal function of the Information Branch is to furnish the commercial community of Canada with information concerning the assistance that exporters and importers may obtain from the Department of Trade and Commerce. The Branch is responsible also for stimulating a better appreciation by the general public of the importance of trade to the welfare of Canada. The attention of exporters and potential exporters is directed to opportunities for the disposal of their products in markets abroad, and of importers to the sources of supply for raw materials and consumer goods unobtainable in Canada. Its

principal educational and informative medium is *Foreign Trade*, the weekly publication of the Foreign Trade Service, in which are reproduced reports of Canadian Trade Commissioners on conditions in their respective territories, articles by Head Office personnel and economists of the Dominion Bureau of Statistics, news items and charts portraying trade trends. Press releases are prepared and distributed to newspapers at home, and material of a similar character dispatched to Canadian Trade Commissioners for distribution to newspapers abroad. Pamphlets and brochures are prepared to supplement other information on foreign markets, sources of supply, documentation, regulations and trade restrictions. Assistance is rendered to correspondents of newspapers and periodicals at home and abroad in the preparation of articles pertaining to various phases of Canada's foreign trade. The educational and promotional work of this Branch is supported by advertising at home and abroad, through the daily press, periodicals and trade papers, as well as films and radio. Although the Information Branch is part of the Foreign Trade Service, its functions were expanded to include assistance to the associated agencies of the Department of Trade and Commerce concerned with the development of foreign trade. For example, it handles publicity connected with the projects undertaken by the Canadian Government Exhibition Commission in this and other countries.

Canadian Government Exhibition Commission.—The Canadian Government Exhibition Commission by graphic media of all kinds publicizes Canada and helps to sell Canadian products abroad. Under the terms of reference, the Commission is solely responsible for the construction and administration of all Federal Government exhibits in international expositions, trade fairs and displays outside Canada in which the Government of Canada may decide to participate, and of all international expositions and trade fairs held in Canada and sponsored by the Government of Canada. The Commission's first fulfilment of the latter half of this responsibility was the development of the Canadian International Trade Fair, held annually at Toronto since 1948. Manufacturers and producers in Canada and other countries have an opportunity of displaying their products at this Fair.

The Commission also co-operates with Canadian exporters in securing representation for goods at trade fairs and trade promotional displays and, on request, is prepared to advise individual Canadian companies in the preparation of their exhibits. Moreover, it distributes at its various presentations large quantities of materials produced by other Canadian Government Departments and agencies.

Export Credits Insurance Corporation.—The Export Credits Insurance Corporation was established under the provisions of the Export Credits Insurance Act, 1944, and as amended in August 1946 and May 1948. The Corporation, which is administered by a board of directors, including the Deputy Minister of Trade and Commerce, the Deputy Minister of Finance and the Governor of the Bank of Canada, insures exporters against losses arising from credit and political risks involved in the export or an agreement for the export of goods. Policies are generally issued on a yearly basis, covering exporters' sales to all countries. The main risks covered by Export Credits Insurance Policies include: insolvency or protracted default on the part of the buyer; exchange restrictions in the buyer's country preventing the transfer of funds to Canada; cancellation of an import licence or the imposition of restrictions on the importation of goods not previously subject to restrictions; the occurrence of war between the buyer's country and Canada, or of war, revolution, etc., in the buyer's country.

The insurance is available under two main classifications—general commodities and capital goods. Coverage for general commodities can be procured by exporters under two types of policies: (1) the Contracts Policy, which insures an exporter against loss from the time he books the order until payment is received; or (2) the Shipments Policy, obtainable at lower rates of premium and which covers the exporter from the time of shipment until payment is received.

Insurance of capital goods offers protection to exporters dealing in plant equipment, heavy machinery, etc., where extended credit for longer periods is often necessary. Specific policies are issued for transactions involving capital goods, but the general terms and conditions are the same as those applicable to policies for general commodities.

The Corporation insures exporters on a co-insurance basis up to a maximum of 85 p.c. of the gross invoice value of shipments. This co-insurance basis also operates in the distribution of recoveries obtained after payment of a loss, and these recoveries are shared by the Corporation and exporter in the proportions of 85 and 15 p.c., respectively.

The Corporation, from its inception to Dec. 31, 1951, issued policies having a total value of \$315,704,750. Claims paid to exporters, during the same period, covering losses sustained by them under the terms and conditions of their policies amounted to \$705,894. A large majority of these claims resulted from exchange transfer difficulties, with relatively few arising from insolvencies. Recoveries made amounted to \$508,529. Excess of income over expenditure to Dec. 31, 1951, was \$1,985,083, which was added to its underwriting reserve in accordance with the practice followed by the Corporation since it began operations.

International Economic and Technical Co-operation Division.—This Division is responsible for the supervision of all Canadian commitments under the Colombo Plan for the Economic Development of South and South-East Asia. This includes the capital development program of tangible assistance, as well as the technical training and guidance provided through the Technical Co-operation Service. It is closely associated with the Technical Assistance Administration and other specialized agencies of the United Nations concerned with the betterment of conditions in the underdeveloped areas of the world.

Section 2.—The Development of Tariffs

A short sketch of trade and tariffs prior to Confederation is given at pp. 480-482 of the 1940 edition of the Year Book. The 1942 Year Book, at pp. 427-428, traces the development from Confederation to the adoption in 1904 of the present form of preferential tariff.

Owing to the limitations of space in the Year Book, it has been necessary, in regard to tariffs, to adopt the policy of confining any detail regarding commodities and countries to tariff relationships in force at present and to summarize as much as possible historical data and details of preceding tariffs, giving references to those editions of the Year Book where extended treatments can be found.

Subsection 1.—The Canadian Tariff Structure

The Canadian Tariff consists mainly of three sets of tariff rates—British Preferential, Most-Favoured-Nation, and General. British Preferential rates consisted at first (1898) of a remission of 25 p.c. of the duties ordinarily paid but later (1900) were advanced to 33½ p.c. and, after 1904, took the form of a specially

low rate of duty on almost all imported dutiable commodities. This is the first broad category of the tariff structure and these rates are applied to specified goods from Commonwealth countries if shipped direct to Canada. On certain goods special rates may be applied under the British Preferential Tariff; these special rates are lower on those goods than the ordinary British Preferential scale.

The second scale is the Most-Favoured-Nation Tariff. These rates apply to goods from countries that have been accorded tariff treatment more favourable than the General Tariff but which are not entitled to the British Preferential rate. To certain non-Commonwealth countries, a special concession under the Most-Favoured-Nation rates may be granted and rates lower than those of the Most-Favoured-Nation tariff may apply by agreement.

The third class of duties is the General Tariff, which is levied on all imports that do not qualify for Preferential or Most-Favoured-Nation tariff treatment.

British Preferential rates apply to all countries within the Commonwealth. They may, however, be modified downward in their application to specific countries when trade agreements are being revised or discussed between Canada and other Commonwealth countries. The whole tariff structure is very complicated. Almost every Budget brought down in the House of Commons changes the incidence of the tariff in some particulars, so that it would be impossible to attempt here a discussion of tariff schedules. The schedules and rates in force at any particular time may be obtained from the Department of National Revenue, Ottawa, which is responsible for administering the Canadian Tariff.

In all cases where the tariff applies, there are provisions for drawbacks of duty on imported materials used in the manufacture of products later exported. The purpose of these drawbacks is to give Canadian manufacturers a fair basis of competition with foreign producers of similar goods, where it is felt to be warranted. A second class of drawbacks known as 'home consumption' drawbacks apply mainly to imported materials and parts used in the production of specified classes of goods manufactured for home consumption.

Too often one-sided competition arises out of unfair practices, such as dumping or the manipulation of exchange advantages. Wide powers have been given, in certain instances, to supplement tariff provisions. Thus, the Minister of National Revenue or, through him, the customs officials have been empowered at times to establish a 'fair market value' as a basis of applying duties to be collected. The term 'fair market value' is vague and open to various interpretations and has been frequently criticized but, in exceptional cases of imports from General Tariff countries, arbitrary valuations have proved effective.

The exchange situation as it affects the Tariff is a different problem. A foreign currency that has become considerably depreciated in relation to the Canadian dollar enables the country concerned to export goods to Canada under a very definite advantage and customs officials have been given power, under conditions such as these, to value imports from such countries at a 'fair rate of exchange'. Much, of course, depends on the manner in which the above powers are applied by the administrative officials and their understanding of the reasons for their application and, while the powers of fixing 'fair market value' and 'fair rate of exchange' have been applied to meet extraordinary conditions in the past, these powers have now been modified by clauses in trade agreements drawn up with individual countries.

The Tariff Board.—The Tariff Board, constituted by the Tariff Board Act, 1931, consists of three members, one of whom is chairman and another vice-chairman. The duties and powers of the Board derive from three Statutes of Canada: the Tariff Board Act, the Customs Act, and the Excise Tax Act.

Under the Tariff Board Act the Board makes inquiry into and reports upon any matter in relation to goods that, if brought into Canada or produced in Canada, are subject to or exempt from duties of customs or excise and on which the Minister of Finance desires information. The investigation into any such matter may include inquiry as to the effect that an increase or decrease of the existing rate of duty upon a given commodity might have upon industry or trade, and the extent to which the consumer is protected from exploitation. It is also the duty of the Board to inquire into any other matter in relation to the trade and commerce of Canada that the Governor in Council sees fit to refer to the Board for inquiry and report. Usually the references take one of two forms: authority for review of sections of the Customs Tariff relating to an entire industry, or for investigation in respect of specified commodities. Under a provision of the Act, reports are tabled in Parliament.

Under the provisions of the Customs Act and the Excise Tax Act, the Tariff Board is authorized to act as a tribunal to hear appeals from rulings of the Department of National Revenue in respect of matters of administration including those of excise taxes, tariff classification, value for duty, and drawback of customs duties. Declarations of the Board on appeals on questions of fact are final and conclusive, with provision for appeal on questions of law to the Exchequer Court of Canada. Tariff references and appeals receive public hearings at which interested parties submit oral statements and written briefs relating to matters under consideration.

Subsection 2.—Tariff Relationships with Other Countries

General Agreement on Tariffs and Trade.*—The General Agreement on Tariffs and Trade is by far the most important trade agreement in which Canada is participating at the present time. Fundamentally, it is a multilateral agreement which applies equally to all the 34 contracting parties.

The Agreement consists of three parts corresponding to the several distinctive aspects of trade negotiations:—

Part I (Articles 1 and 2) deals with tariff rates. The general provisions regarding the application of rates of duty negotiated under the Agreement are set forth and the schedules of negotiated duties are also included.

Part II (Articles 3 to 23) covers all non-tariff matters which have a direct bearing on international trade. The principles set forth in this Part constitute an international code of regulations for conducting foreign trade.

Part III (Articles 24 to 34) deals with matters concerning the administration and the relationship of the Agreement to the Charter for an International Trade Organization.

Part I defines the meaning and application of the principle of most-favoured nation treatment, which is the key provision of the Agreement. Briefly, it requires that each contracting party will accord the same advantages and privileges with respect to international trade to all other contracting parties. An exception is made to permit existing preferences to be maintained, but these cannot be increased. In connection with Part I, there are schedules listing the products on which each country has agreed to bind or reduce its tariff. As a rule, tariff negotiations are

* For details concerning the development of the General Agreement on Tariffs and Trade, see Year Book 1950, pp. 966-968.

initiated by the principal supplier and, in every case, the rate of duty finally agreed upon becomes the rate which would apply to a similar product sold by any country which is a contracting party to the Agreement.

Under this new system of multilateral tariff negotiations, three conferences have taken place—at Geneva, Switzerland, in 1947, at Annecy, France, in 1949 and at Torquay, England, in 1950-51. The tariff concessions Canada granted and received at the Geneva Conference are described in the 1948-49 edition of the Year Book, pp. 875-877, and those negotiated at Annecy are discussed in the 1950 edition of the Year Book, pp. 968-970.

The rates in the Geneva and Annecy Schedules were bound against increase for a definite period to January 1951. After that time, countries were entitled to modify their schedules by negotiation or consultation with other contracting parties.

The Torquay Conference followed the same pattern as the previous negotiations, and the most recent agreements are really an extension of the agreements drawn up in the previous years. Under the most-favoured-nation principle, all tariff concessions agreed to at Torquay are available to Canada, whether or not these concessions were negotiated directly with Canada. Similarly, Canada extends its own tariff concessions to each of the other participating countries.

The results of the Torquay negotiations were important in a number of ways. Arrangements were made to extend the Geneva and Annecy concessions for a further firm period of three years. The General Agreement also was expanded to include the following four new members: Austria, the German Federal Republic, Peru and Turkey (*see* footnote 1 at pp. 1003 and 1004). Finally, new tariff negotiations took place between present members to cover a broader range of commodities and, in many cases, to provide for further reductions on products previously negotiated. The new tariff concessions, together with the Geneva and Annecy concessions, are to remain in force until Jan. 1, 1954.

As part of the undertaking to extend the previous agreements for a further firm period of three years, countries had a right under the General Agreement to make modifications or withdrawals of previous tariff concessions and, in a few cases, concessions were withdrawn from Canada. In such instances, compensation was made by way of tariff concessions on other products so that the over-all value to Canada of the previous agreements was not impaired. The original tariff concessions exchanged among the United States, the United Kingdom, Canada and a number of other important countries were, however, maintained in their entirety.

Part II of the Agreement sets forth in considerable detail the rules and regulations designed to reduce and eventually eliminate discriminatory practices in international trade. Traditionally, the tariff was the chief instrument for regulating the volume of imports which each country was willing to accept. To-day, however, the most effective and widely adopted method of regulating the flow of imports is through the application of more drastic measures, such as quantitative restrictions, exchange controls, state barter deals and bilateral agreements. The contracting parties agree to apply the provisions of Part II "to the fullest extent not inconsistent with existing legislation", and it is on this basis that the terms of Part II of the Agreement are observed to-day. The most significant clauses include those dealing with taxes on imported goods, various forms of quantitative restrictions, special considerations for countries in balance-of-payment difficulties, and special considerations for countries undertaking defined programs of economic development or reconstruction. (*See* the 1948 edition of the Year Book, p. 874, and the 1950 edition, p. 967.)

Part III of the Agreement deals with the mechanics of administration. Representatives of the contracting parties are required to meet at frequent intervals, usually about every six months, to carry out the provisions of the Agreement which require joint action and generally to facilitate the operation of the Agreement. These meetings are referred to as "sessions" of the contracting parties and seven sessions (including the three conferences at which tariff negotiations were also conducted) have taken place to Nov. 30, 1952.

Other Tariff Relations.—The General Agreement on Tariffs and Trade is a blanket agreement applicable to all contracting parties on the same basis. However, there are also other tariff arrangements in effect to-day which were negotiated prior to the provisional adoption of the General Agreement. In many cases, these earlier trade arrangements are allowed to stand. The contracting parties are also permitted to negotiate new trade agreements, subject to the qualifications of the General Agreement, but they cannot increase any margins of preference or extend new preferences.

Canada has a number of reciprocal tariff arrangements with members of the Commonwealth and other countries. They are grouped as follows:—

- (1) application to Canada of some old commercial treaties of the United Kingdom;
- (2) participation in commercial treaties of the United Kingdom by Canadian Acts of Parliament or Orders in Council;
- (3) Canadian Conventions of Commerce or Trade Agreements; and
- (4) exchanges of notes respecting tariff matters.

Canada extended preferential rates for the first time to the United Kingdom in 1898, and after World War I most-favoured-nation agreements were made with countries outside the Empire. By the late 1930's, Canada had trade agreements with 32 countries but some of these lapsed during World War II and have not been replaced.

New commercial agreements were made during the War with several South American countries that had expanded their trade with Canada and, since the end of the War, most-favoured-nation agreements have been made with Turkey, Greece, Italy, China, Nicaragua, the Federal Republic of Germany, and Austria.

Many of Canada's reciprocal trade treaties are simply exchanges of most-favoured-nation treatment and do not include schedules of tariff concessions. However, some important agreements, such as the Canada-United States trade treaties of 1935 and 1938, do include lists of negotiated tariff rates. Practically all the items bound in these earlier agreements are now covered by the General Agreement.

The benefit received by Canadian exports under most-favoured-nation treatment in any country depends upon the tariff and treaty system in force. Some countries possess a single-column tariff and extend whatever concessions they make to all countries without discrimination. Other countries have minimum, intermediate and maximum tariff rates and their most-favoured-nation rates are either the minimum or intermediate schedules. Sometimes, most-favoured-nation treatment is subject to certain reservations concerning preferential rates granted by one state to another on special historical, political or geographical grounds.

Various modifications in tariff rates have been made under special trade arrangements, but the British Preferential rates, which are applicable to numerous types of goods from many parts of the Commonwealth, are always the most favourable. In return for this special treatment, Canadian goods enjoy similar tariff advantages in many Commonwealth countries.

Tariff Arrangements in Force as of Nov. 30, 1952.—In the following list, contracting countries under the General Agreement on Tariffs and Trade (G.A.T.T.) are indicated. In the case of a number of countries belonging to G.A.T.T., other trade arrangements with Canada remain in force and the terms of these are given in the statement.

Tariff and Trade Arrangements with Commonwealth Countries, as at Nov. 30, 1952

Country	Treaty or Convention	Terms
UNITED KINGDOM.....	Trade Agreement signed Feb. 23, 1937; in force Sept. 1, 1937. Modified by an Exchange of Letters Nov. 16, 1938, resulting from United Kingdom - United States Trade Agreement of Nov. 17, 1938. Further modified by General Agreement on Tariffs and Trade and Exchange of Notes Oct. 30, 1947. G.A.T.T. effective Jan. 1, 1948.	Various concessions by both countries, including exchange of lowest tariff rates (some minor reservations by Canada) and binding against increase of scheduled preferential duties. Extends also to Colonial Empire.
AUSTRALIA.....	Trade Agreement signed July 8, 1931, in force Aug. 3, 1931. G.A.T.T. effective Jan. 1, 1948.	Each country accords the other reduced rates on schedules of goods, and otherwise (with a few exceptions in Australia) exchanges its British Preferential Tariffs with the other. Made for one year and thereafter until terminated on six months notice.
NEW ZEALAND.....	Trade Agreement signed Apr. 23, 1932; in force May 24, 1932. G.A.T.T. effective July 26, 1948.	Exchange specific preferences on scheduled goods and otherwise concede British Preferential Tariffs reciprocally. Made for one year, but kept in force by short-term extensions. Since Sept. 30, 1941, in force until terminated on six months notice.
UNION OF SOUTH AFRICA	Trade Agreement signed Aug. 20, 1932; in force Oct. 13, 1932. G.A.T.T. effective June 14, 1948.	Agreement extends list of preferences formerly exchanged in absence of formal Agreement. Made for five years and thereafter until terminated on six months notice.
SOUTHERN RHODESIA..	Trade Agreement of Aug. 20, 1932, terminated on Jan. 2, 1938, on notice from Southern Rhodesia. Provisions have, nevertheless, continued in force. G.A.T.T. effective May 19, 1948.	Canada accords British Preferential Treatment and Southern Rhodesia tariff preferences granted to other Commonwealth Countries.

Tariff and Trade Arrangements with Commonwealth Countries, as at Nov. 30, 1952
—concluded

Country	Treaty or Convention	Terms
INDIA.....	Canada since 1897 accords India British Preferential treatment but without contractual obligation. G.A.T.T. effective July 8, 1948.	
PAKISTAN.....	Canada since 1897 accords Pakistan British Preferential treatment but without contractual obligation. G.A.T.T. effective July 30, 1948.	
CEYLON.....	Ceylon participates in Trade Agreement of 1937 between United Kingdom and Canada. G.A.T.T. effective July 29, 1948.	Canada and Ceylon exchange Preferential tariff treatment.
BRITISH WEST INDIES, BERMUDA, BRITISH GUIANA AND BRITISH HONDURAS	Trade Agreement signed July 6, 1925; in force Apr. 30, 1927. Covers the following Colonies—Bahamas, Barbados, Bermuda, British Guiana, British Honduras, Jamaica, Leeward Islands, Trinidad and Tobago, Windward Islands. NOTE.—The B.W.I. with the exception of Jamaica are parties to the G.A.T.T.	Exchange of specific margins of preferences. Made for 12 years and thereafter until terminated on one years notice. A Canadian notice of Nov. 23, 1938, terminating the Agreement, was replaced by one of Dec. 27, 1939, continuing the Agreement subject to termination on six months notice.
IRELAND.....	Trade Agreement signed Aug. 20, 1932; in force Jan. 2, 1933.	Canada concedes British Preferential Tariff in return for most-favoured-nation treatment (including any preferential rates in force) in Eire. Made for five years and thereafter until terminated on six months notice.

Tariff and Trade Arrangements with Non-Commonwealth Countries, as at Nov. 30, 1952

Country	Treaty or Convention	Terms
ARGENTINA.....	Trade Agreement signed Oct. 2, 1941; provisionally in force Nov. 15, 1941.	Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months notice. To come into force definitively 30 days after exchange of ratification for two years and thereafter until terminated on six months notice.
AUSTRIA.....	G.A.T.T. effective Oct. 19, 1951.	
BENELUX (BELGIUM, LUXEMBOURG AND THE NETHERLANDS)	Convention of Commerce with Belgium (including Luxembourg and Belgian colonies) entered into effect Oct. 22, 1924.	Exchange of most-favoured-nation treatment in tariff matters. Made for four years and thereafter until terminated on one years notice.

**Tariff and Trade Arrangements with Non-Commonwealth Countries, as at
Nov. 30, 1952—continued**

Country	Treaty or Convention	Terms
BENELUX (BELGIUM, LUXEMBOURG AND THE NETHERLANDS) —concluded	Convention of Commerce with The Netherlands of July 11, 1924, was suspended during the War but reinstated by Exchange of Notes Feb. 1 and 5, 1946; includes Netherlands Antilles and Surinam. G.A.T.T. effective covering Bene- lux as a whole Jan. 1, 1948.	Exchange of most - favoured - nation treatment. Made for four years and thereafter until terminated on one years notice.
BOLIVIA.....	Order in Council of July 20, 1935, accepted Article 15 of the United Kingdom - Bolivia Treaty of Commerce of Aug. 1, 1911.	Exchange of most - favoured - nation treatment. May be terminated on one years notice.
BRAZIL.....	Trade Agreement signed Oct. 17, 1941; provisionally in force from date of signing and definitively on Apr. 16, 1943. G.A.T.T. effective July 31, 1948.	Exchange of most - favoured - nation treatment. Made for two years from Apr. 18, 1943, and thereafter for one-year periods until terminated on six months notice.
BURMA.....	G.A.T.T. effective July 29, 1948.	
CHILE.....	Trade Agreement signed Sept. 10, 1941; in force provisionally Oct. 15, 1941, and definitively on Oct. 29, 1943. G.A.T.T. effective Mar. 16, 1948.	Exchange of most - favoured - nation treatment. Made for two years from Oct. 29, 1943, and thereafter until terminated on six months notice.
CHINA.....	<i>Modus vivendi</i> signed Sept. 26, 1946; in effect Sept. 28, 1946. China withdrew from G.A.T.T. on May 5, 1950.	Exchange of most - favoured - nation treatment. Made for one year and thereafter until terminated on three months notice.
COLOMBIA.....	Treaty of Commerce with United Kingdom of Feb. 16, 1866, applies to Canada. A Trade Agreement between Colombia and Canada was signed Feb. 20, 1946, but has not been put into force.	Exchange of most - favoured - nation treatment. Protocol of Aug. 20, 1912, provides means of separate termination by Canada on one years notice. Exchange of Notes Dec. 30, 1938, continued Treaty in force until Sept. 30, 1939, and thereafter until terminated on three months notice.
COSTA RICA.....	<i>Modus vivendi</i> signed Nov. 18, 1950; brought into force, Jan. 26, 1951.	Exchange of most - favoured - nation treatment. Made for one year and thereafter subject to termination on three months notice.
CUBA.....	G.A.T.T. effective Jan. 1, 1948.	
CZECHOSLOVAKIA.....	Convention of Commerce, signed Mar. 15, 1928, in force Nov. 14, 1928. G.A.T.T. effective May 21, 1948.	Exchange of most - favoured - nation treatment. Made for four years and thereafter until terminated on one years notice.

**Tariff and Trade Arrangements with Non-Commonwealth Countries, as at
Nov. 30, 1952—continued**

Country	Treaty or Convention	Terms
DENMARK, including GREENLAND	Treaties of Peace and Commerce with United Kingdom of Feb. 13, 1660, and July 11, 1670, apply to Canada. G.A.T.T. effective May 28, 1950.	Exchange of most-favoured-nation treatment. Declaration of May 9, 1912, provides means for separate termination by Canada on one years notice.
DOMINICAN REPUBLIC	Trade Agreement signed Mar. 8, 1940; in force provisionally Mar. 15, 1940, and definitively Jan. 22, 1941. G.A.T.T. effective May 19, 1950.	Exchange of most-favoured-nation treatment. Dominican Republic accords scheduled rates on dried fish and free entry for seed potatoes. Made for three years from Jan. 22, 1941, and thereafter until terminated on six months notice.
ECUADOR.....	<i>Modus vivendi</i> signed Nov. 10, 1950, in force Dec. 1, 1950.	Exchange of most-favoured-nation treatment. Made for one year to continue thereafter subject to termination on three months notice.
EL SALVADOR.....	Exchange of Notes of Nov. 2, 1937; in force Nov. 17, 1937.	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on four months notice.
FINLAND.....	Exchange of Notes of Nov. 13-17, 1948, effective Nov. 17, 1948. G.A.T.T. effective May 25, 1950.	Exchange of most-favoured-nation treatment. Effective until a Trade Agreement concluded or, alternatively, for a period of one year and thereafter until terminated on three months notice.
FRANCE AND FRENCH OVERSEAS TERRI- TORIES	Trade Agreement signed May 12, 1933; in force June 10, 1933. Exchange of Notes of Sept. 29, 1934, and additional protocol of Feb. 26, 1935. G.A.T.T. effective Jan. 1, 1948.	Exchange of most-favoured-nation treatment including scheduled concessions.
FEDERAL REPUBLIC OF WESTERN GERMANY	G.A.T.T. effective Oct. 1, 1951.	
GREECE.....	<i>Modus vivendi</i> by Exchange of Notes of July 24-28, 1947; effective Aug. 28, 1947. G.A.T.T. effective Mar. 1, 1950.	Exchange of most-favoured-nation treatment. Made for a period of one year and thereafter until terminated on three months notice.
GREENLAND.....	(See Denmark.)	
GUATEMALA.....	Trade Agreement signed Sept. 28, 1937; in force Jan. 14, 1939.	Exchange of most-favoured-nation treatment. Made for three years and thereafter until terminated on six months notice.

**Tariff and Trade Arrangements with Non-Commonwealth Countries, as at
Nov. 30, 1952—continued**

Country	Treaty or Convention	Terms
HAITI.....	Trade Agreement signed Apr. 23, 1937; in force Jan. 10, 1939. G.A.T.T. effective Jan. 1, 1950.	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on six months notice.
ICELAND.....	Canada and Iceland honour the terms of a treaty originally concluded between Denmark and the United Kingdom of Feb. 13, 1660.	Exchange of most-favoured-nation treatment.
INDONESIA.....	G.A.T.T. effective Mar. 1, 1948.	
IRAN.....	Special arrangement Feb. 1, 1951..	Exchange of most-favoured-nation treatment.
IRAQ.....	Special arrangement Sept. 15, 1951.	Exchange of most-favoured-nation treatment.
ITALY.....	<i>Modus vivendi</i> by Exchange of Notes of Apr. 23-28, 1948; effective Apr. 28, 1948. G.A.T.T. effective May 30, 1950.	Exchange of most-favoured-nation treatment. For one year and thereafter until terminated on three months notice.
KOREA.....	1	
LEBANON.....	Special Arrangement by Order in Council of Nov. 19, 1946. Withdrawn from G.A.T.T., effective Mar. 1, 1951.	Exchange of most-favoured-nation treatment.
LIBERIA.....	G.A.T.T. effective Jan. 1, 1950.	
MEXICO.....	Trade Agreement signed Feb. 8, 1946; in force provisionally same date. Ratifications exchanged on May 6, 1947.	Exchange of most-favoured-nation treatment. Entered into force definitively 30 days after exchange of ratifications for two years and thereafter until termination on six months notice.
NICARAGUA.....	Trade Agreement signed Dec. 19, 1946, in force provisionally same date. G.A.T.T. effective May 28, 1950.	Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months notice. To come into force definitively 30 days after exchange of ratifications for one year and thereafter unless terminated on six months notice.
NORWAY.....	Convention of Commerce and Navigation with United Kingdom of Mar. 18, 1826, applies to Canada. G.A.T.T. effective July 10, 1948.	Exchange of most-favoured-nation treatment. Convention of May 16, 1913, provides means for separate termination by Canada on one years notice.

¹ This country participated in the Torquay negotiations but has not yet (November 1952) become a Contracting Party to the General Agreement on Tariffs and Trade.

**Tariff and Trade Arrangements with Non-Commonwealth Countries, as at
Nov. 30, 1952—continued**

Country	Treaty or Convention	Terms
PANAMA.....	Order in Council of July 20, 1935, accepted Article 12 of the United Kingdom - Panama Treaty of Commerce of Sept. 25, 1928.	Exchange of most - favoured - nation treatment. The United Kingdom - Panama Treaty terminated in 1942 but Canada and Panama continue to extend most - favoured - nation treatment to one another.
PARAGUAY.....	Exchange of Notes of May 21, 1940; in force June 21, 1940.	Canadian Intermediate Tariff exchanged for most-favoured-nation treatment in Paraguay. In force until terminated on three months notice.
PERU.....	G.A.T.T. effective Oct. 8, 1951.	
PHILIPPINES.....	No agreement at present although most - favoured - nation treatment exchanged. ¹	
POLAND.....	Convention of Commerce signed July 3, 1935; in force Aug. 15, 1936.	Exchange of most - favoured - nation treatment and special reductions for limited lists of goods. Made for one year and thereafter until terminated on three months notice.
PORTUGAL, including MADEIRA, PORTO SANTO, AND THE AZORES	Trade Agreements Act of June 11, 1928, accepted Article 21 of the United Kingdom - Portugal Treaty of Commerce of Aug. 12, 1914; in force Oct. 1, 1928.	Exchange of most - favoured - nation treatment. In force until terminated on one years notice.
SPAIN.....	Spanish Treaty Act of June 11, 1928, sanctioned United Kingdom-Spain Treaty of Commerce of Oct. 31, 1922 (revised Apr. 5, 1927); in force Aug. 1, 1928.	Exchange of most - favoured - nation treatment. In force until terminated on six months notice.
SWEDEN.....	United Kingdom - Sweden Convention of Commerce and Navigation of Mar. 18, 1826, applies to Canada. G.A.T.T. effective May 1, 1950.	Exchange of most - favoured - nation treatment. Declaration of Nov. 27, 1911, provides means for separate termination by Canada on one years notice.
SWITZERLAND.....	United Kingdom - Switzerland Treaty of Friendship, Commerce and Reciprocal Establishment of Sept. 6, 1855, applies to Canada. By Exchange of Notes, Liechtenstein is included under terms of this Agreement, effective Aug. 21, 1947.	Exchange of most - favoured - nation treatment. Convention of Mar. 30, 1914, provides means for separate termination by Canada on one years notice.
SYRIA.....	Special Arrangement by Order in Council of Nov. 19, 1946. Withdrew from G.A.T.T. Aug. 6, 1951.	Exchange of most - favoured - nation treatment.

¹ The Philippines participated in the Torquay negotiations but has not as yet (November 1952) become a Contracting Party to the General Agreement on Tariffs and Trade.

**Tariff and Trade Arrangements with Non-Commonwealth Countries, as at
Nov. 30, 1952—concluded**

Country	Treaty or Convention	Terms
TURKEY.....	Exchange of Notes signed Mar. 1, 1948, in effect Mar. 15, 1948. G.A.T.T. effective Oct. 17, 1951.	Exchange of most-favoured-nation treatment. In effect for one year and thereafter until terminated on three months notice.
UNITED STATES.....	G.A.T.T. effective Jan. 1, 1948.	If at any time either country ceases to be a party to G.A.T.T., the Trade Agreement signed Nov. 17, 1938, now suspended, will again come into effect.
URUGUAY.....	Trade Agreement signed Aug. 12, 1936; in force May 15, 1940. ¹	Exchange of most-favoured-nation treatment. Made for three years and thereafter until terminated on six months notice.
VENEZUELA.....	<i>Modus vivendi</i> signed and brought into force Oct. 11, 1950; renewed Oct. 11, 1952.	Exchange of most-favoured-nation treatment. Made for one year subject to annual renewal.
YUGOSLAVIA.....	Trade Agreements Act of June 11, 1928, accepted Article 30 of United Kingdom-Serb-Croat-Slovene Treaty of Commerce and Navigation of May 12, 1927; in force Aug. 9, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one years notice.

¹ This country participated in the Torquay negotiations but has not yet (November 1952) become a Contracting Party to the General Agreement on Tariffs and Trade.

CHAPTER XXII.—PRICES*

CONSPECTUS

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NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

An article summarized from the *Report of the Royal Commission on Prices* is given in the 1950 Year Book, pp. 978-982.

Section 1.—Wholesale Prices

Wholesale prices are not restricted in this Chapter to the normal meaning of that word, but may include price quotations ranging from those paid by primary producers for basic raw materials to prices paid by retailers for finished articles. Within this broad group, numerous sub-classifications are available, such as component material, degree of manufacture and special purpose series. Wholesale prices are frequently very sensitive to changing conditions and are often used to gauge the economic effect of events, as well as to forecast retail price change. An example of this is the price increase which followed the outbreak of hostilities in Korea in 1950.

A new series of wholesale price index numbers, related to the base period 1935-39, was introduced in January 1951. Background material concerning the construction of this index is available in D.B.S. Reference Paper No. 24, *Wholesale Price Indexes, 1913-1950*.

Wholesale price index numbers in Canada cover the period dating from Confederation in 1867. An intermittent decline characterized the first 30 years of this interval but, from an average of 56·8 in 1897, the general wholesale index (1935-39 = 100) advanced without appreciable interruption to 83·9 in July 1914. By 1918, this index had reached 173·1 and continued upward to a post-war inflationary peak of 214·2 in May 1920. The subsequent deflationary period lasted about two years, and between 1922 and 1929 price levels remained comparatively stable. Annual averages in this interval held between a high of 133·8 for 1925 and 124·6 for 1929. For the four years following 1929, depressionary influences were so severe that prices fell almost to the level of those of 1913. In February 1933, the wholesale index touched an extreme low of 82·8 before turning upward again. Irregular recovery then continued until 1937, but the highest point reached, 110·6 in July 1937, was substantially below the 1926 average. The collapse of the wheat market in 1938, together with a fairly general depression in other markets, carried wholesale price levels just prior to the outbreak of war in 1939 down to about 15 p.c. above the 1913 level. The August 1939 index of 95·6 marked the extreme low of a two-year

* Revised in the Prices Section, Labour and Prices Division, Dominion Bureau of Statistics.

decline. The movement of prices prior to the outbreak of World War I was very different from that which preceded World War II. The relatively low level of prices in August 1939 probably influenced the sharper initial advance at the outbreak of war. However, during 1940, price levels steadied and showed no sign of a steep increase until 1941. By that time, great expansion in wartime production had made serious inroads into stocks of nearly all basic commodities and, at the end of 1941, wheat remained the only important commodity for which stocks exceeded predictable requirements. The introduction of general price control in December 1941 ended a year in which wholesale prices had advanced 10 p.c. as compared with about 3 p.c. in 1940. The effectiveness of price control is indicated by the fact that percentage increases in wholesale prices amounted to only 3.1 and 5.2 during the years 1942 and 1943, respectively, while the December 1944 index was slightly below the December 1943 figure. The December 1945 index of 132.9 was 10 p.c. above that for December 1941, when price control became generally effective.

The precipitous advance in United States general wholesale prices that began during the latter half of 1946 was of great concern to Canadian price-control authorities. The advance had been anticipated in July 1946, when the Canadian dollar was returned to par with the United States dollar, thus reducing the Canadian dollar cost of imports from the United States. This provided a buffer of 10 p.c. only and the rise in United States prices was greater than that on a large majority of imported articles so that continuous pressure was felt, especially among individual items. The Canadian general wholesale price index rose from 132.3 to 142.5, an increase of over 8 p.c. between May 1945 and December 1946.

The Canadian price rise accelerated in 1947 as internal controls continued to be relaxed. The monthly general wholesale index advanced without interruption from 142.5 at December 1946 to 179.9 at December 1947, an increase of 26 p.c. The rise carried through into 1948, although at a decreasing rate, and by December the index had reached a level of 202.0. Wholesale price levels, during 1949, were generally stable.

Wholesale prices rose slightly during the first five months of 1950 to reach an index level of 204.7 by May. In June, a sharp gain to 209.2 occurred, due mainly to rapidly advancing prices for live stock, lumber, iron and steel products and non-ferrous metals. An important factor stimulating further advance was the outbreak of war in Korea. The effect on basic commodities originating in or near that area was particularly sharp and by the end of the year the index had risen to 225.2.

In 1951 the index reached new peak levels, culminating in an all-time high of 243.7 in July. This trend was reversed in the second half of the year when the index declined steadily, reflecting marked recessions in animal products and textile products. The December 1951 index at 237.7, however, was still 5.6 p.c. above December 1950.

The downward movement continued throughout the first 10 months of 1952, the total index standing at 221.0 for October. Declines were recorded by most of the main commodity groups, although an upward trend was still apparent in iron and steel products and non-metallic mineral products.

1.—Annual Index Numbers of Wholesale Price Groups, 1942-51, and Monthly Index Numbers, January 1950-October 1952

(1935-39=100)

Year and Month	General Whole- sale	Raw and Partly Manu- factured Goods	Fully and Chiefly Manu- factured Goods	Building and Cons- truction Materials ¹	Indus- trial Materials	Canadian Farm Products ²		
						Field	Animal	Total
1942.....	123.0	123.0	123.7	131.1	135.1	109.7	144.6	127.1
1943.....	127.9	131.1	126.9	137.9	140.0	129.0	161.8	145.4
1944.....	130.6	134.4	129.1	144.8	143.1	144.5	166.1	155.3
1945.....	132.1	136.2	129.8	144.8	143.2	162.5	170.2	166.4
1946.....	138.9	140.1	138.0	153.4	148.6	177.9	181.2	179.5
1947.....	163.3	164.3	162.4	189.3	187.0	184.1	200.2	192.2
1948.....	193.4	196.3	192.4	222.6	222.7	200.6	263.7	232.1
1949.....	198.3	197.1	199.2	229.2	218.0	191.9	265.4	228.7
1950.....	211.2	212.8	211.0	249.9	244.6	191.9	281.4	236.7
1951.....	240.2	237.9	242.4	289.8	296.1	193.4	336.9	265.1
1950								
January.....	199.0	197.7	200.1	229.0	216.5	189.9	253.5	221.7
February.....	200.0	199.0	201.0	231.7	219.3	189.3	259.6	224.5
March.....	201.5	200.6	202.4	233.3	221.4	192.8	266.0	229.4
April.....	202.5	202.3	203.1	234.5	223.7	194.7	268.0	231.3
May.....	204.7	206.9	204.2	238.5	230.2	195.4	272.8	234.1
June.....	209.2	214.6	207.1	243.5	237.6	197.7	289.1	243.4
July.....	212.0	218.3	209.3	255.3	243.8	197.2	296.4	246.8
August.....	215.7	221.2	213.7	258.5	251.5	191.8	298.5	245.1
September.....	222.6	226.0	221.6	270.0	265.2	190.2	297.1	243.7
October.....	220.0	220.0	220.8	267.0	269.3	187.8	286.8	237.3
November.....	222.4	221.9	223.2	265.2	275.6	187.9	290.5	239.2
December.....	225.2	225.1	225.7	268.1	280.9	188.2	298.4	243.3
1951								
January.....	232.5	231.2	233.9	280.1	294.0	191.1	310.7	250.9
February.....	238.6	237.1	240.1	287.1	304.1	195.5	329.6	262.5
March.....	241.9	239.4	244.0	290.3	306.0	198.8	347.1	272.9
April.....	242.4	239.2	244.8	293.9	307.0	199.2	331.6	265.4
May.....	241.9	239.3	244.3	294.0	306.1	194.6	336.1	265.3
June.....	243.0	244.0	243.6	290.2	304.0	192.0	353.1	272.6
July.....	243.7	242.5	245.6	289.8	297.0	195.4	358.9	277.1
August.....	241.4	237.1	245.0	290.4	287.4	178.3	348.3	263.3
September.....	240.0	235.7	243.7	291.1	285.8	181.7	339.2	260.5
October.....	239.6	236.3	242.7	291.4	289.4	188.1	330.4	259.3
November.....	239.1	237.1	241.5	289.3	287.5	201.4	328.5	264.9
December.....	237.7	236.0	239.8	289.5	284.6	204.4	328.9	266.7
1952								
January.....	236.8	233.3	239.7	289.3	281.4	208.0	318.2	263.1
February.....	232.6	227.8	236.2	289.6	270.7	205.1	297.3	251.2
March.....	230.8	225.5	234.6	288.1	265.1	213.3	283.3	248.3
April.....	226.9	221.3	230.7	286.2	258.4	217.1	273.7	245.4
May.....	224.8	220.2	228.1	286.9	251.0	223.2	265.4	244.3
June.....	226.5	220.6	230.6	286.7	248.5	227.6	271.4	249.5
July.....	225.5	218.5	230.0	287.5	248.0	213.3	275.3	244.3
August.....	223.9	216.3	228.8	288.4	244.7	195.3	277.2	236.2
September.....	222.1	212.5	228.0	288.3	241.0	181.9	269.1	225.5
October.....	221.0	209.9	227.7	289.4	239.7	179.7	263.0	221.3

¹ Arithmetically converted from base 1926=100.

² The wheat prices used are those currently effective for Manitoba Nos. 1, 2 and 3 Northern at Fort William. Participation payments are included and the series revised whenever such figures are announced. Between August 1945 and July 1950 the price included in the index for No. 1 Manitoba Northern was \$1.83 per bu. For the crop year ended July 31, 1951, the price included was \$1.85 per bu. The initial payment for the crop year beginning Aug. 1, 1951, was \$1.40 per bu., increased to \$1.60 effective Feb. 1, 1952, retroactive to Aug. 1, 1951. Commencing Aug. 1, 1949, western oats and barley were brought under control of the Canadian Wheat Board. Prices used for Canadian farm products since that time have been initial payments to farmers. Participation payments are included whenever they are announced. Final payments for the crop year ended July 31, 1951, were announced Sept. 26, 1951, for western oats and barley. Increases in initial payments for barley for the crop year 1951-52 became effective Mar. 1, 1952, retroactive to Aug. 1, 1951.

Residential Building Materials.—In March 1949, a series of index numbers of residential building material prices (basis: 1935-39=100) was established to meet the need for a more precise measurement of material components of residential

construction. A description of the index together with a record back to 1926 is given in D.B.S. bulletin, *Price Index Numbers of Residential Building Materials, 1926 to 1948*.

In 1951, residential building material prices continued the advance recorded in 1950, closing the year at 288.8, 9.7 p.c. above the December 1950 level. Electrical equipment, plumbing and heating equipment and lumber showed the most substantial increases for the year. These groups, however, reversed direction in the final month of 1951 inaugurating a decline which continued well into 1952. On the other hand, prices for cement, sand, gravel, and brick and tile reached new peak levels during the first ten months of 1952.

2.—Wholesale Price Index Numbers of Residential Building Materials, 1942-51, and Monthly Indexes, January 1950-October 1952

(1935-39=100)

Year and Month	Com- posite Index	Principal Components								
		Cement, Sand and Gravel	Brick, Tile and Stone	Lumber and Lumber Pro- ducts	Lath, Plaster and Insula- tion	Roofing Material	Paint and Glass	Plumb- ing and Heating Equip- ment	Elect- rical Equip- ment and Fixtures	Other Mate- rials
1942.....	130.9	100.8	109.0	153.2	104.8	123.4	146.9	120.0	110.3	117.6
1943.....	139.1	101.2	113.1	171.3	104.8	130.1	149.4	120.0	110.3	117.9
1944.....	146.6	101.8	114.9	188.4	104.8	136.0	146.6	120.0	110.3	117.9
1945.....	148.3	102.1	116.4	191.3	104.8	135.5	142.2	122.2	111.4	118.0
1946.....	154.5	102.0	121.0	202.1	104.2	146.2	144.2	127.2	116.9	126.4
1947.....	180.4	169.7	133.4	242.0	107.3	172.3	169.6	145.2	147.4	143.0
1948.....	217.5	122.3	143.1	305.8	116.7	201.6	183.1	168.3	169.8	162.3
1949.....	228.0	127.0	151.0	322.1	118.1	190.5	179.6	180.2	173.4	174.7
1950.....	242.7	131.3	163.8	349.2	116.7	235.4	174.8	183.2	184.5	181.1
1951.....	286.2	140.9	180.7	425.0	126.3	235.8	197.8	210.4	213.3	212.7
1950										
January.....	227.2	128.3	157.1	320.6	114.8	194.9	175.1	180.1	175.4	172.0
February.....	227.4	128.7	157.1	320.8	114.8	199.5	173.4	180.1	175.4	172.0
March.....	227.0	129.6	157.1	319.8	114.8	202.5	173.4	179.4	175.4	172.0
April.....	227.2	129.1	157.1	319.2	114.8	211.5	173.4	179.8	175.4	174.8
May.....	230.7	129.2	157.1	325.6	114.8	232.7	168.2	179.9	179.1	177.7
June.....	238.3	129.2	157.1	341.6	114.8	245.1	168.2	180.0	188.6	178.4
July.....	245.2	131.8	157.1	355.0	115.5	270.9	168.6	180.1	188.6	180.9
August.....	247.6	131.8	164.6	358.5	115.5	280.0	177.2	180.1	188.6	181.1
September.....	256.3	131.9	175.2	370.6	120.0	292.1	178.5	187.9	195.0	189.4
October.....	260.4	134.8	175.2	383.0	120.0	237.6	178.5	189.1	191.8	191.4
November.....	262.1	134.8	175.2	387.8	120.0	222.5	181.2	189.1	190.5	191.7
December.....	263.3	136.0	175.2	387.8	120.8	234.9	182.1	192.2	190.5	192.3
1951										
January.....	270.1	136.4	175.2	398.7	124.5	250.0	193.6	194.1	199.5	196.9
February.....	275.0	136.7	176.3	408.3	124.5	260.6	194.5	194.4	199.5	204.6
March.....	282.6	140.3	176.3	420.5	126.6	257.1	193.2	205.2	199.5	204.8
April.....	287.6	139.4	181.8	428.5	126.6	257.1	198.3	205.8	207.3	208.5
May.....	289.5	140.8	181.8	432.9	126.6	248.0	198.3	209.0	210.1	209.2
June.....	289.2	139.9	181.8	431.2	126.7	225.8	199.6	212.9	220.2	209.2
July.....	289.8	139.9	181.8	431.2	126.7	222.8	198.8	214.2	221.5	218.1
August.....	290.4	143.5	181.9	431.2	126.7	225.8	199.6	215.7	220.2	218.1
September.....	290.8	143.0	181.9	431.2	126.7	225.8	199.6	217.4	220.2	219.8
October.....	290.8	143.1	183.2	431.2	126.7	222.9	199.6	217.4	220.2	219.8
November.....	289.4	143.1	183.2	427.8	126.7	219.9	199.6	217.9	220.2	221.2
December.....	288.8	145.0	183.2	426.7	126.7	213.9	198.3	217.3	220.1	222.1
1952										
January.....	287.9	148.3	183.2	424.7	126.7	210.9	197.9	216.9	218.8	222.1
February.....	287.9	148.9	183.2	423.6	126.7	223.0	200.5	216.9	215.9	222.1
March.....	286.8	148.9	192.5	420.9	126.7	220.0	199.7	216.6	211.6	222.1
April.....	285.2	148.1	192.5	416.4	129.1	216.9	198.5	216.9	208.4	227.4
May.....	284.4	148.1	198.8	414.6	129.1	213.9	193.7	216.2	208.4	227.4
June.....	284.0	148.1	198.8	414.6	129.1	210.9	194.2	215.1	203.6	227.4
July.....	284.3	148.3	198.8	414.3	129.1	216.9	192.4	215.2	212.9	227.4
August.....	284.6	150.3	198.8	414.3	129.1	223.0	192.4	215.2	212.6	227.4
September.....	284.6	151.1	198.8	414.3	129.1	220.0	192.4	215.2	212.2	227.4
October.....	284.3	151.1	198.8	413.7	129.1	220.0	192.4	215.2	212.2	227.4

World Wholesale Price Indexes.—Price changes within different countries have varied widely since the years before World War II. Comparisons between Canadian wholesale price changes and those that have occurred in other countries are provided in Table 3.

3.—Index Numbers of Wholesale Prices in Canada and other Countries, 1949, and December, 1950 and 1951

NOTE.—Base: 1948=100 except for France, where 1949=100.

(SOURCE: *Monthly Bulletin of Statistics of the United Nations*)

Country	1949	Month of December—		Country	1949	Month of December—	
		1950	1951			1950	1951
Australia.....	112	143	173	New Zealand.....	99	113	135
Canada.....	103	116	123	Norway.....	102	127	149
Chile.....	114	151	192	Peru (Lima).....	140	178	203
Denmark.....	102	129	151	Portugal (Lisbon).....	102	100	117
Finland.....	101	132	177	Sweden.....	101	118	149
France.....	100	120	152	Switzerland.....	95	101	105
India.....	104	112	118	Union of South Africa.....	106	119	142
Mexico (Mexico City).....	110	129	154	United Kingdom.....	105	133	151
The Netherlands.....	104	128	145	United States.....	95	107	109

Section 2.—The Consumer Price Index

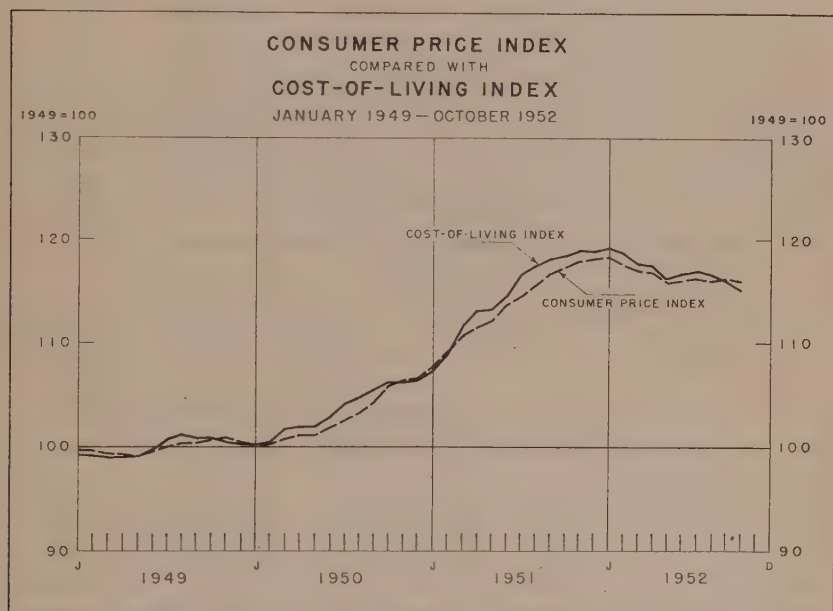
A new measurement of retail prices entitled, "The Consumer Price Index", was introduced by the Dominion Bureau of Statistics in October 1952. This index has been constructed to replace the Cost-of-Living Index and marks the most thorough and comprehensive index of retail prices ever constructed in Canada. The new index was introduced in a Bureau publication entitled *The Consumer Price Index, January 1949–August 1952*, which contains detailed information on such aspects of the new index as purpose, family coverage, base period, and provides details of the items included as well as their relative importance. It also gives the formula used in calculating the index, outlines methods of price collection and explains the special features of the new index.

The purpose of the Consumer Price Index is essentially the same as that of the Cost-of-Living Index; that is, to measure changes in retail prices of goods and services bought by a representative cross-section of the Canadian urban population. The families covered by the new index, however, are somewhat different from those represented in the Cost-of-Living Index and consist of those families who, during the survey year ended Aug. 31, 1948, lived in 27 Canadian cities of 30,000 population or over, ranged in size from two adults to two adults with four children and had annual incomes ranging from \$1,650 to \$4,050.

To measure the influence of price change upon the cost of goods and services purchased by such families, the Consumer Price Index contains 225 items, nearly 40 p.c. more than the Cost-of-Living Index. This expanded list of items reflects changes in consumption habits of Canadian families that occurred over the decade

1938-1948, as well as the broader sampling that has been possible in the new index. The index content is purely factual in its nature, and no attempt has been made to distinguish between 'luxuries' and 'necessities'.

Pre-war levels of prices now constitute an unsatisfactory reference level and the base period of the index is the year 1949, as compared to the average of the years 1935-39 in the case of the Cost-of-Living Index. Of the post-war years, 1949 was selected as the base period because price levels then were relatively stable, and because of the unsatisfactory nature of other post-war years. The fact that 1949 is a satisfactory reference level for other index number measurements such as those related to industrial production, agriculture, imports and exports, was also of considerable importance.



With the change to 1949, the Consumer Price Index measures the percentage change in retail prices between that year and, for example, October 1952, rather than between October 1952 and 1935-39 as in the case of the Cost-of-Living Index. Since prices were substantially higher in 1949 than in 1935-39, indexes that take this higher price level as their reference base are considerably lower in absolute numbers. Thus, the Cost-of-Living Index for October 1952 was 185.0 while the comparable Consumer Price Index for the same date was 116.0. However, when both indexes are placed on the same base period, it will be seen that the two indexes have moved closely together over the period during which it is possible to compare them. The Consumer Price Index has been calculated forward from January 1949 and the accompanying chart compares monthly movements since that date with the movements of the Cost-of-Living Index.

It is notable that the 1948 survey of family expenditure indicated that the major economic changes during the decade 1938-1948 did not influence the percentage distribution of family expenditure as greatly as might have been expected. The following statement provides a comparison of the base period group weights of the two indexes.

GROUP BASE WEIGHTS OF THE CONSUMER PRICE INDEX AND THE COST-OF-LIVING INDEX

Budget Group	Consumer Price Index	Cost-of- Living Index
	P.C.	P.C.
Foods	32	31
Clothing	11	12
Shelter	15	19
Household operation	17	15
Fuel and light	—	6
Home furnishings and services	—	9
Other commodities and services	25	—
Miscellaneous	—	23
TOTALS	100	100

The Consumer Price Index and Prices of Staple Foods.—The Consumer Price Index rose steadily throughout 1951 from 107.7 as at January of that year to a post-war peak of 118.2 for January 1952. During this period, all groups of the Consumer Price Index advanced, with foods showing the sharpest increase from 109.0 to 122.4. In 1952, the index declined steadily until May, and remained fairly stable between that date and October 1952.

4.—Consumer Price Index, 1942-51 and by Months, January 1951 to October 1952

(1949=100)

Year and Month	Food	Shelter	Clothing	Household Operation	Other Com- modities and Services	Total Consumer Price Index
1942.....	63.4	90.7	65.8	76.0	82.0	72.9
1943.....	65.2	90.9	66.1	76.1	84.8	74.2
1944.....	65.5	91.2	66.6	75.7	86.1	74.6
1945.....	66.3	91.4	66.9	74.9	86.4	75.0
1946.....	70.0	91.8	69.2	77.2	88.7	77.5
1947.....	79.5	95.1	78.9	86.2	91.6	84.8
1948.....	97.5	98.3	95.6	96.8	96.5	97.0
1949.....	100.0	100.0	100.0	100.0	100.0	100.0
1950.....	102.6	106.2	99.7	102.4	103.1	102.9
1951.....	117.0	114.4	109.8	113.1	111.5	113.7
1951						
January.....	109.0	110.0	102.6	107.1	107.4	107.7
February.....	111.0	110.4	105.1	108.6	108.0	109.1
March.....	114.1	111.5	106.7	110.5	108.3	110.8
April.....	115.5	111.8	108.5	111.4	108.6	111.7
May.....	114.3	112.4	109.0	112.7	110.4	112.2
June.....	115.8	115.2	109.5	113.8	111.8	113.7
July.....	117.9	115.5	109.7	114.3	112.2	114.6
August.....	119.0	115.8	110.7	115.1	113.4	115.5
September.....	120.5	117.2	111.9	115.5	113.6	116.5
October.....	121.3	117.2	114.1	115.8	114.1	117.1
November.....	122.5	118.2	114.5	115.9	114.8	117.9
December.....	122.5	118.2	115.2	116.4	115.0	118.1
1952						
January.....	122.4	118.3	114.9	116.4	115.5	118.2
February.....	120.8	118.3	113.5	116.3	115.8	117.6
March.....	117.6	119.1	112.9	116.9	116.4	116.9
April.....	117.2	119.4	112.5	116.8	116.6	116.8
May.....	115.5	119.6	112.3	116.2	115.6	115.9
June.....	115.7	120.4	111.8	115.9	115.7	116.0
July.....	116.0	120.6	111.7	115.9	115.6	116.1
August.....	115.7	120.6	111.6	115.8	115.8	116.0
September.....	115.8	121.2	110.9	116.0	115.8	116.1
October.....	115.1	121.5	109.9	116.2	116.4	116.0

Table 5 provides single commodity price relatives on the base 1949=100 for a number of important foods entering into the food component of the Consumer Price Index. It also provides a record of average prices based on the actual average level of prices prevailing in October 1952, and calculated for the other months on the basis of the price relatives.

5.—Urban Average and Relative Retail Prices of Staple Foods, 1942-51, and by Months, January 1951-October 1952

(1949=100)

Year and Month	Beef, sirloin, per lb.		Pork, fresh loins, per lb.		Lard, pure, per lb.		Eggs, "A", fresh, per doz.		Milk, per quart	
	Average Price	Relative Price	Average Price	Relative Price	Average Price	Relative Price	Average Price	Relative Price	Average Price	Relative Price
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
1942.....	35.8	50.8	34.8	54.5	15.1	64.2	43.1	70.1	12.1	67.7
1943.....	39.2	55.6	37.0	57.9	17.5	74.5	48.3	78.5	10.3	57.7
1944.....	41.3	58.6	37.7	59.1	16.4	69.7	44.8	72.9	10.3	57.8
1945.....	42.9	60.9	38.9	60.9	17.0	72.5	47.2	76.7	10.3	57.8
1946.....	44.2	62.7	42.3	66.2	18.5	78.9	48.7	79.2	12.2	68.6
1947.....	48.3	68.6	46.5	72.9	25.5	108.6	50.3	81.8	15.2	85.4
1948.....	62.5	88.7	58.5	91.7	28.9	123.3	59.7	97.1	17.3	96.9
1949.....	70.4	100.0	63.8	100.0	23.5	100.0	61.5	100.0	17.8	100.0
1950.....	82.8	117.6	63.4	99.3	22.4	95.3	56.5	91.8	18.3	102.9
1951.....	101.1	143.5	73.3	114.8	28.4	121.1	71.6	116.5	19.6	110.0
1951										
January.....	87.4	124.1	66.4	104.0	26.8	114.0	60.1	97.7	19.1	107.2
February.....	92.3	131.0	67.8	106.2	28.5	121.6	54.4	88.5	19.2	107.8
March.....	96.3	136.7	69.5	108.9	30.1	128.3	64.0	104.0	19.2	107.8
April.....	98.5	139.9	68.0	106.5	30.8	131.2	63.0	102.4	19.3	108.3
May.....	99.7	141.6	67.2	105.3	30.1	128.3	67.7	110.1	19.4	108.9
June.....	100.4	142.5	70.9	111.1	29.1	124.1	71.1	115.6	19.5	109.5
July.....	105.9	150.4	79.3	124.3	28.3	120.7	79.6	129.4	19.5	109.5
August.....	106.8	151.7	82.7	129.6	27.5	117.0	81.6	132.7	19.6	110.0
September.....	107.0	151.9	85.4	133.8	27.8	118.3	83.5	135.8	19.6	110.0
October.....	106.8	151.6	80.0	125.4	28.0	119.1	82.2	133.6	19.7	110.6
November.....	106.1	150.7	76.8	120.3	28.1	119.5	78.6	127.8	20.3	114.0
December.....	105.6	149.9	65.0	101.8	26.2	111.6	74.0	120.4	20.8	116.8
1952										
January.....	106.8	151.6	66.8	104.6	24.7	105.3	57.6	93.7	21.0	118.0
February.....	105.3	149.5	62.8	98.4	22.3	94.9	51.5	83.8	21.0	118.0
March.....	97.3	138.2	59.4	93.1	18.9	80.6	49.9	81.1	21.1	118.5
April.....	94.0	133.5	60.1	94.2	17.3	73.9	49.2	80.0	21.1	118.5
May.....	92.1	130.8	59.4	93.1	15.1	64.3	48.9	79.5	21.1	118.5
June.....	91.8	130.4	62.6	98.0	14.3	60.9	48.6	79.0	21.1	118.5
July.....	94.2	133.8	64.3	100.7	15.0	63.9	59.1	96.1	21.1	118.5
August.....	96.3	136.8	63.4	99.3	15.0	63.9	68.3	111.0	21.1	118.5
September.....	94.4	134.1	63.7	99.8	14.6	62.2	69.2	112.5	21.1	118.5
October.....	86.7	123.1	65.3	102.3	14.6	62.2	70.6	114.8	21.1	118.5

5.—Urban Average and Relative Retail Prices of Staple Foods, 1942-51, and by Months, January 1951-October 1952—concluded

Year and Month	Flour, per lb.		Tomatoes, canned, 2½ s, tin		Potatoes, 10 lbs.		Sugar, granulated, per lb.		Bread, per lb.	
	Average Price	Relative Price	Average Price	Relative Price	Average Price	Relative Price	Average Price	Relative Price	Average Price	Relative Price
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
1942	4.1	58.4	12.8	64.0	29.2	83.9	8.0	87.2	6.6	66.7
1943	4.1	58.4	13.1	65.2	32.1	92.2	8.1	87.5	6.6	66.7
1944	4.1	58.4	13.5	67.3	30.2	86.8	8.1	87.5	6.6	66.7
1945	4.0	57.0	13.5	67.1	34.9	100.3	8.1	87.5	6.6	66.7
1946	4.0	56.8	14.2	70.7	34.3	98.4	8.1	87.5	6.6	66.7
1947	4.5	64.7	18.5	92.1	33.8	97.1	8.8	95.2	7.1	72.4
1948	6.1	88.0	24.4	121.7	40.4	116.1	9.1	98.6	9.1	92.2
1949	7.0	100.0	20.1	100.0	34.8	100.0	9.2	100.0	9.9	100.0
1950	7.3	104.8	17.7	88.0	33.2	95.4	10.6	114.4	10.3	104.6
1951	7.5	106.9	23.1	115.0	34.8	99.9	12.0	129.8	11.4	115.5
1951										
January	7.4	106.2	19.6	97.9	27.0	77.4	11.6	125.6	10.8	109.4
February	7.4	106.2	20.1	100.3	28.1	80.6	11.6	125.6	11.0	111.4
March	7.4	106.2	20.7	103.2	29.3	84.0	11.6	125.6	11.3	114.5
April	7.4	106.2	21.2	105.7	29.0	83.1	11.6	125.6	11.3	114.5
May	7.4	106.2	21.8	108.6	25.8	82.6	11.6	125.6	11.3	114.5
June	7.4	106.2	22.8	113.8	29.7	85.2	11.8	127.7	11.3	114.5
July	7.5	107.6	23.7	118.2	39.3	112.9	12.3	133.0	11.3	114.5
August	7.5	107.6	24.1	120.1	38.3	110.0	12.4	134.1	11.5	116.6
September	7.5	107.6	24.5	122.0	34.5	98.9	12.4	134.1	11.5	116.6
October	7.5	107.6	24.7	123.0	35.1	100.8	12.4	134.1	11.8	119.7
November	7.5	107.6	26.2	130.8	43.3	124.3	12.3	133.0	11.8	119.7
December	7.5	107.6	27.4	136.5	55.3	158.8	12.3	133.0	11.8	119.7
1952										
January	7.5	107.6	28.2	140.4	60.4	173.5	12.3	133.0	11.8	119.7
February	7.5	107.6	28.9	144.2	62.4	179.2	12.2	132.0	11.8	119.7
March	7.5	107.6	29.3	146.2	62.6	179.7	12.0	129.8	11.8	119.7
April	7.5	107.6	29.7	148.1	72.3	207.5	11.7	126.7	11.8	119.7
May	7.4	106.2	29.8	148.6	78.2	224.6	11.3	122.5	11.8	119.7
June	7.4	106.2	30.1	150.0	90.8	260.6	11.0	119.3	11.8	119.7
July	7.3	104.7	30.2	150.5	88.8	254.9	10.9	118.2	11.8	119.7
August	7.3	104.7	30.2	150.5	76.5	219.6	10.8	117.0	11.8	119.7
September	7.3	104.7	29.1	145.0	66.4	190.6	10.6	114.9	11.8	119.7
October	7.3	104.7	27.2	135.6	54.8	157.3	10.4	112.7	11.7	118.7

Regional Changes in Living Costs.—Cost-of-Living Indexes for nine regional cities are shown in Table 6. The index for St. John's, Nfld., was prepared subsequent to the date Newfoundland joined Confederation, and is calculated on the base June 1951=100, whereas indexes for the other cities are on the base August 1939=100. The city indexes are patterned after the Cost-of-Living Index and will not be compiled on the same basis as the Consumer Price Index until some time in 1953.

The city indexes are not designed to show whether it costs more or less to live in one city than in another and should not be used for that purpose. Their function is to show the extent of price change within each city.

6.—Index Numbers of Living Costs in Nine Cities, 1942-51, and by Months, January 1951-October 1952

(August 1939=100)

Year and Month	St. John's	Halifax	Saint-John	Montreal	Toronto	Winnipeg	Saskatoon	Edmonton	Vancouver
1942.....	...	114.5	116.0	118.4	115.6	113.7	116.7	112.7	114.2
1943.....	...	117.0	117.7	120.4	116.5	115.0	118.1	115.3	117.3
1944.....	...	118.3	118.8	120.7	117.1	115.7	119.4	116.3	117.9
1945.....	...	119.3	119.4	122.0	117.7	116.8	120.2	117.5	119.2
1946.....	...	122.5	122.7	126.0	121.8	120.4	124.4	121.3	123.0
1947.....	...	132.7	133.3	138.1	133.7	130.9	137.1	131.9	134.9
1948.....	...	148.9	152.7	158.3	151.7	148.8	167.4	149.9	155.6
1949.....	...	153.8	157.5	163.9	156.4	155.3	162.5	156.0	162.0
1950.....	...	157.0	162.8	170.0	162.8	161.2	166.1	162.1	167.8
1951.....	1	172.4	179.6	190.3	180.4	178.0	181.4	177.1	185.2
1951									
January.....	...	160.2	168.4	177.8	168.6	167.8	170.2	166.0	172.6
February.....	...	162.3	171.2	180.6	171.5	170.1	172.6	169.0	175.8
March.....	...	167.1	174.8	184.3	176.4	173.6	177.8	172.8	179.2
April.....	...	169.2	176.9	186.3	178.3	175.6	178.9	174.7	182.6
May.....	...	169.4	177.4	187.2	178.6	175.7	179.0	175.3	182.9
June.....	100.0	171.5	179.3	190.4	179.9	177.4	180.3	176.4	185.3
July.....	101.3	176.3	182.5	195.3	183.5	181.8	184.4	179.6	188.8
August.....	102.8	177.9	184.2	194.8	184.5	182.4	186.0	181.7	189.8
September.....	102.7	177.5	184.2	196.0	185.4	182.2	186.2	181.5	190.2
October.....	103.0	178.2	185.1	196.4	185.8	183.1	187.0	181.9	190.0
November.....	103.2	179.4	185.6	197.4	186.5	183.0	187.5	182.3	192.0
December.....	103.5	179.3	186.1	197.3	186.0	183.3	187.2	183.6	192.8
1952									
January.....	103.9	179.3	188.0	198.1	187.1	183.7	187.0	183.4	193.6
February.....	103.7	178.2	187.5	197.1	186.0	183.4	187.1	183.2	192.5
March.....	104.0	177.8	187.0	195.4	184.4	182.0	185.6	181.2	192.2
April.....	103.8	177.8	186.8	193.8	184.8	181.9	183.7	180.0	192.3
May.....	103.1	177.4	184.2	191.0	182.9	180.5	181.0	177.8	190.6
June.....	102.7	179.2	185.6	192.5	181.4	180.6	180.9	177.5	190.6
July.....	103.9	179.6	186.4	193.4	184.4	181.0	183.0	178.5	189.8
August.....	105.3	179.0	186.1	191.7	184.2	180.0	183.9	179.1	189.5
September.....	103.6	176.7	183.9	191.7	183.3	179.0	182.7	177.7	189.0
October.....	103.0	174.0	181.6	189.8	181.8	177.5	181.5	177.0	187.3

¹ New D.B.S. index for St. John's: June 1951=100. For explanation of methods see D.B.S. Reference Paper No. 28.

World Retail Price Indexes.—In order to place changes in Canadian retail prices in perspective with those occurring in other countries, Table 7 provides retail price indexes for selected countries and dates. It will be noted that increases in retail prices have been world-wide. These indexes also measure price change only and should not be used to compare living costs from country to country.

7.—Index Numbers of Retail Prices in Canada and other Countries, 1949 and December 1950 and 1951

NOTE.—Base: 1948=100 except for France and The Netherlands, where 1949=100.

Country	1949	Month of December—		Country	1949	Month of December—	
		1950	1951			1950	1951
Australia.....	109	127	158	The Netherlands.....	100	113	119
Canada	103	110	122	New Zealand.....	102	111	125
Chile (Santiago).....	119	149	183	Norway.....	100	112	127
Denmark.....	101	109	121	Peru (Lima).....	115	136	146
Finland.....	102	127	137	Sweden.....	102	107	126
France (cost of food in Paris).....	100	118	139	Switzerland.....	99	99	105
Iceland (Reykjavik).....	102	139	165	Union of South Africa.....	104	112	121
India (Bombay).....	101	102	109	United Kingdom.....	103	107	120
Mexico (Mexico City).....	105	115	136	United States.....	99	104	110

Section 3.—Index Numbers of Security Prices

Security prices have long been utilized in statistical measurements related to economic phenomena and are, generally, sensitive to changing business conditions, although this valuable characteristic is sometimes overshadowed by the fact that their movements may be influenced greatly by speculative interest very remotely associated with underlying economic conditions. Thus, in 1928 and 1929, common-stock prices advanced far beyond levels indicated by business profits and prospects. Security-price trends also have been at variance with other business indexes during World Wars I and II.

Common Stocks.—Common stock prices advanced substantially during 1951 despite two major intermediate declines. From a level of 146.3 for December 1950, the composite index for 105 industrial, utility and bank stocks moved up to 166.5 by February 1951. A drop to 160.7 in June ensued, followed by another sharp rise to a 22-year monthly peak of 183.3 by October. The final level for the year of 177.3 in December was an increase of 21.2 p.c. over the same month of 1950. In January 1952, the composite index opened on a firm note at 181.7 but subsequent weakness developed, coinciding with lower commodity prices, to reduce the index to 163.6 by October.

8.—Investors Index Numbers of Common Stocks, by Months, 1951, and from January to October 1952

(1935-39=100)

Year and Month	Types of Stocks									
	Industrials									
	Machinery and Equipment	Pulp and Paper	Milling	Oils	Textiles and Clothing	Food and Allied Products	Beverages	Building Materials	Industrial Mines	Industrials, Total
1951										
January.....	401.9	481.6	104.7	110.1	359.3	125.6	442.4	244.8	118.1	154.8
February.....	422.2	531.6	110.5	126.9	399.6	127.8	463.4	259.7	125.6	168.0
March.....	411.1	513.3	107.1	133.6	383.0	124.4	441.2	251.6	117.1	165.0
April.....	415.8	568.3	106.1	138.2	369.0	123.4	445.4	260.9	118.3	169.1
May.....	406.4	579.2	104.7	138.9	363.0	121.0	436.3	264.2	117.2	168.3
June.....	396.4	562.2	104.1	134.1	359.8	117.9	425.6	257.6	117.0	164.4
July.....	405.0	568.1	111.3	135.1	355.5	115.2	421.8	264.6	118.1	165.8
August.....	419.2	588.5	117.7	145.3	366.6	118.4	419.9	277.8	127.1	174.5
September.....	445.4	609.8	124.0	156.6	371.6	119.7	436.5	308.8	135.4	185.4
October.....	462.5	595.5	122.6	162.6	346.3	114.2	445.9	305.8	141.0	189.5
November.....	431.7	562.3	121.9	150.8	314.1	110.9	425.2	284.7	136.6	178.8
December.....	430.4	573.6	119.3	154.7	308.2	108.5	405.9	290.0	140.2	180.6
1952										
January.....	452.0	582.8	118.5	161.0	301.2	111.8	396.5	295.3	148.1	186.7
February.....	450.3	563.7	120.4	159.8	285.7	111.8	371.8	293.3	151.3	185.2
March.....	443.3	546.1	120.9	162.8	277.1	110.4	371.7	286.4	143.2	182.6
April.....	417.6	510.8	120.1	172.7	261.2	107.8	352.0	274.0	137.8	180.5
May.....	414.9	488.9	117.8	160.9	258.9	102.5	343.3	264.5	131.5	172.4
June.....	420.2	506.5	121.6	157.4	268.2	101.5	357.9	268.4	138.7	174.8
July.....	422.5	518.4	135.5	158.7	272.7	104.6	367.5	281.4	143.9	178.6
August.....	441.8	519.9	152.3	153.4	297.2	107.5	375.6	299.4	145.0	179.8
September.....	434.7	499.1	145.4	146.6	286.8	109.7	363.8	290.7	141.2	174.3
October.....	407.5	471.9	143.4	138.1	271.9	110.2	350.4	277.5	132.2	164.9

8.—Investors Index Numbers of Common Stocks, by Months, 1951, and from January to October 1952—concluded

Year and Month	Types of Stocks				Banks, Total	Grand Total
	Public Utilities					
	Trans- portation	Telephone and Telegraph	Power and Traction	Public Utilities, Total		
1951						
January.....	266.5	102.5	135.8	148.6	155.6	153.8
February.....	315.2	104.6	146.0	163.2	158.5	166.5
March.....	301.8	104.0	142.4	158.9	150.0	162.9
April.....	304.7	102.9	143.9	159.7	144.1	165.6
May.....	296.4	102.0	139.8	156.0	141.7	164.2
June.....	290.7	101.2	136.0	153.0	141.1	160.7
July.....	299.6	101.2	137.7	155.4	140.0	162.0
August.....	328.8	100.5	142.1	162.6	137.2	169.7
September.....	368.8	100.8	147.6	172.3	140.2	179.8
October.....	378.4	99.2	149.1	174.0	141.5	183.3
November.....	354.4	99.2	143.4	167.2	141.0	174.0
December.....	402.1	99.0	146.0	177.0	144.2	177.3
1952						
January.....	388.0	98.6	147.9	175.0	146.5	181.7
February.....	375.7	97.3	141.2	169.5	143.8	179.5
March.....	390.2	93.8	140.8	170.4	143.6	177.6
April.....	404.1	90.3	138.2	170.4	140.1	175.8
May.....	390.6	90.6	133.6	166.2	141.2	169.0
June.....	388.6	91.7	138.4	168.1	146.6	171.6
July.....	389.1	92.1	140.7	169.3	149.5	174.9
August.....	382.4	94.7	142.1	169.9	152.4	176.0
September.....	367.4	95.0	139.6	166.5	155.2	171.6
October.....	346.8	94.8	138.1	162.1	153.7	163.6

Preferred Stocks.—Preferred stock movements paralleled industrial and utility common stocks during 1951, though the range of fluctuation was smaller. Following an increase from 160.2 in December 1950 to 169.3 in February 1951, prices declined slowly to 162.2 by June, followed by an advance to 166.4 in September. The final figure for the year was 159.5 for December. Continued weakness in 1952 lowered the index a further 2.3 points to 157.2 by May but by October it had advanced to 161.2.

9.—Index Numbers of Preferred Stocks, by Months, 1942-52

(1935-39=100)

NOTE.—Figures for 1927-41 are given in the 1948-49 Year Book, p. 958.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1942.....	99.6	96.8	95.6	94.5	95.4	96.5	95.7	95.8	95.6	96.2	97.5	100.4
1943.....	102.7	105.5	106.4	108.2	110.1	113.3	117.3	117.8	118.0	118.2	115.3	115.8
1944.....	118.3	118.6	119.2	118.7	118.5	122.2	124.7	125.9	126.3	126.7	128.8	129.8
1945.....	131.8	132.1	130.9	130.3	132.4	137.2	138.0	137.8	139.4	142.5	145.0	146.6
1946.....	152.1	154.1	154.5	157.8	159.7	161.6	157.5	157.9	151.4	153.6	154.7	153.5
1947.....	157.5	158.5	156.0	153.1	154.3	155.8	155.4	153.5	153.6	152.0	150.2	148.1
1948.....	144.5	141.0	138.9	144.2	147.0	148.2	147.5	146.4	144.8	143.7	144.6	144.6
1949.....	144.7	144.0	142.8	140.9	139.9	136.3	138.6	140.4	141.8	145.8	150.0	150.7
1950.....	152.4	153.0	153.7	154.4	157.3	158.2	154.6	155.6	158.2	161.1	161.1	160.2
1951.....	166.0	169.3	166.0	165.2	164.3	162.2	163.1	165.2	166.4	164.2	162.8	159.5
1952.....	161.4	160.6	159.5	157.2	157.2	157.7	159.8	163.6	162.4	161.2	160.3	160.8

Mining Stocks.—Mining stock price movements were broadly similar to those of industrials and utilities, the composite index for 30 representative golds and base metals advancing from 88.2 in December 1950 to 104.7 in February 1951, declining to 90.6 in June and recovering to 107.5 in October. The December 1951 figure of 103.4 registered a net gain over the year of 17.2 p.c. In the first four months of 1952, mining stock prices moved within a narrow range, the April index standing at 102.8. The August index rose to a peak of 110.2 but declined to 99.1 by October. Among group changes the gold series index advanced from 59.8 for December 1950 to 73.2 by December 1952. In the same interval the base metals index moved from 146.0 to 172.5 although the latter figure was considerably below the August 1952 peak of 184.9.

10.—Weighted Index Numbers of Prices of Mining Stocks, by Months, 1949-52

(1935-39=100)

Year and Month	Gold	Base Metals	Total	Year and Month	Gold	Base Metals	Total
1949				1951			
January.....	69.1	128.6	88.9	January.....	68.8	163.5	97.6
February.....	68.8	119.5	85.9	February.....	74.3	174.5	104.7
March.....	67.1	113.7	82.8	March.....	71.2	166.7	100.3
April.....	72.3	112.1	86.0	April.....	66.8	165.3	96.7
May.....	69.4	107.5	82.5	May.....	63.7	158.6	92.5
June.....	66.5	102.3	78.9	June.....	63.7	152.3	90.6
July.....	70.6	112.3	84.9	July.....	65.5	155.0	92.7
August.....	75.3	116.8	89.6	August.....	69.7	161.7	97.7
September.....	75.0	118.8	89.9	September.....	73.7	173.6	104.0
October.....	74.9	124.1	91.5	October.....	75.3	181.2	107.5
November.....	77.3	130.1	95.2	November.....	71.9	172.3	102.4
December.....	74.2	128.4	92.4	December.....	73.2	172.4	103.4
1950				1952			
January.....	75.0	127.8	92.8	January.....	72.0	177.7	104.2
February.....	73.2	127.2	91.3	February.....	71.2	174.6	102.6
March.....	73.9	124.5	91.0	March.....	73.4	169.6	102.7
April.....	75.4	127.5	93.0	April.....	77.0	162.1	102.8
May.....	73.6	129.2	92.3	May.....	75.1	161.6	101.4
June.....	70.2	130.8	90.5	June.....	75.5	162.6	102.0
July.....	58.5	126.1	80.9	July.....	76.6	176.6	107.0
August.....	61.6	138.2	86.9	August.....	77.6	184.9	110.2
September.....	62.7	145.1	90.0	September.....	74.4	180.2	106.6
October.....	64.0	147.6	91.7	October.....	69.5	166.9	99.1
November.....	61.1	148.6	90.0	November.....	71.1	168.8	100.8
December.....	59.8	146.0	88.2	December.....	73.2	172.5	103.4

Section 4.—Index Numbers of Bond Yields

The exceptional financial requirements of the war years 1914-18 turned the federal authorities to the domestic market, a field that had hitherto served mainly the needs of the provinces and municipalities. Historical records of long-term bond yields in the domestic market prior to 1914 are obtainable, therefore, from provincial and municipal sources only.

The growing importance of Federal Government financing in the domestic market since World War I made it advisable to publish the Government's index of long-term bond yields shown in Table 11. This series (1935-39=100) has been

computed from January 1937 on the basis of yields computed from a 15-year, 3 p.c. theoretical issue. Quotations for the theoretical yields are computed by the Bank of Canada.

Evidence of underlying strength for government obligations continued to be felt during 1950 as indicated by the narrow limits within which Government of Canada long-term bond yields moved during the year. From the index of 90.3 for December 1949 the yield rose to 91.0 in July 1950. The slightly easier price tone for Government obligations which commenced in the second half of 1950 accelerated in 1951. This was reflected by a change in the long-term bond yield index from 96.7 for December 1950 to 112.0 by December 1951. Further advances in yields in 1952 to an index level of 116.2 by December were noted.

**11.—Index Numbers of Government of Canada Long-Term Bond Yields,
by Months, 1943 - October 1952**

(1935-39=100)

Month	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
January.....	98.8	97.3	96.7	90.0	84.9	92.1	95.4	90.1	97.9	113.4
February.....	98.5	97.3	96.6	85.9	84.7	92.1	95.2	90.3	97.7	113.9
March.....	97.6	97.3	96.3	83.8	84.6	96.7	94.7	90.2	104.6	115.1
April.....	97.3	97.3	96.0	84.3	84.8	96.5	94.4	90.7	104.9	115.3
May.....	97.3	97.2	96.0	85.1	84.6	95.3	94.4	90.2	104.9	112.6
June.....	97.3	97.0	95.6	84.9	84.3	95.4	94.4	90.2	105.3	114.0
July.....	97.3	97.0	94.6	85.1	83.8	95.6	93.8	91.0	104.7	117.3
August.....	97.3	97.0	94.4	85.0	83.9	96.2	92.7	90.5	104.9	119.1
September.....	97.3	97.0	94.6	84.9	84.0	96.1	91.8	89.8	105.0	119.6
October.....	97.3	97.0	94.4	85.0	84.2	96.3	89.1	92.0	105.7	118.6
November.....	97.3	97.0	93.9	85.0	84.4	95.7	89.2	93.9	107.8	118.0
December.....	97.3	96.9	92.2	85.0	84.8	95.5	90.3	96.7	112.0	116.2

CHAPTER XXIII.—PUBLIC FINANCE

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Section 1.—Combined Statistics of Public Finance for all Governments

Combined statistics of public finance of all governments in Canada—federal, provincial and municipal—are presented in this Section. Additional information is provided for each level of government in Sections 2, 3 and 4.

Combined Revenue and Expenditure.—Tables 1 and 3 show details of the federal, provincial and municipal net combined revenue by sources and net combined current and capital expenditure by services. This *net* basis has been prepared by deducting from revenue, and the appropriate expenditure, certain specified amounts such as grants-in-aid and shared-cost contributions from other governments, institutional revenue, certain other sales of commodities and services, and interest premium, discount and exchange revenue, exclusive of sinking fund earnings. Amounts provided for debt retirement are excluded to avoid duplication since all expenditure resulting from capital borrowings is included.

Inter-governmental transfers such as subsidy payments by the Federal Government to the provincial governments are unconditional grants and, therefore, cannot be offset against any specific expenditure. These are set out separately in Tables 1 and 3 in order to prevent duplication and to provide additive totals. Owing to accounting practices of governments and variations in fiscal year-ends, discrepancies appear between the amounts recorded as inter-governmental transfers in Tables 1 and 3.

1.—Combined Revenue of All Governments, 1948 and 1949

NOTE.—Figures for the fiscal years ended nearest Dec. 31.

Year and Item	Federal	Provincial	Municipal ¹	Total
	\$'000	\$'000	\$'000	\$'000
1948				
Taxes—				
Corporation.....	540,287	106,009	—	646,296
Customs duties and import.....	223,786	—	—	223,786
Gasoline.....	—	124,305	—	124,305
General sales.....	377,303	48,351	14,848	440,502
Income—persons.....	762,563	186	—	762,749
Liquor ²	100,875	128,837	—	229,712
Succession duties.....	25,550	29,122	—	54,672
Real and personal property.....	—	4,709	336,556 ³	341,265
Tobacco.....	190,501	8,897	—	199,398
Withholding.....	43,445	—	—	43,445
Other.....	171,832	24,471	41,147	237,450
Totals, Taxes.....	2,436,142	474,887	392,551	3,303,580
Licences, Permits and Fees—				
Motor-vehicle.....	—	51,471	—	51,471
Other.....	2,977	16,118	11,698	30,793
Totals, Licences, Permits and Fees.....	2,977	67,589	11,698	82,264
Public domain.....	2,315	71,913	—	74,228
Public utility contributions to municipalities.....	—	—	20,415	20,415
Post Office (net).....	3,011	—	—	3,011
Bank of Canada profits.....	19,107	—	—	19,107
Bullion and coinage.....	3,253	—	—	3,253
Miscellaneous revenue.....	108,709 ⁴	21,308	38,313	168,330
Totals, Revenue (excluding Inter-governmental transfers).....	2,575,514	635,697	462,977	3,674,188
Inter-governmental Transfers—				
Federal subsidies to provinces.....	—	17,034	—	17,034
Provincial subsidies to municipalities.....	—	—	8,192	8,192
Dominion-Provincial Taxation Agreements.....	—	84,279	—	84,279
Nova Scotia highway tax.....	—	342	—	342
Manitoba Municipal Commissioner's levy.....	—	1,303	—	1,303
Interest on Common School Fund and School Lands Fund Debentures.....	—	1,466	—	1,466
Totals, Inter-governmental Transfers.....	—	104,424	8,192	112,616
Grand Totals, 1948.....	2,575,514	740,121	471,169	3,786,804
1949				
Taxes—				
Corporation.....	605,315	127,065	—	732,380
Customs duties and import.....	226,403	—	—	226,403
Gasoline.....	—	137,759	—	137,759
General sales.....	403,437	61,899	16,007	481,343
Income—persons.....	621,982	122	—	622,104
Liquor ²	107,077	134,436	—	241,513
Succession duties.....	29,920	29,164	—	59,084
Real and personal property.....	—	4,450	369,309 ³	373,759
Tobacco.....	206,334	9,578	—	215,912
Withholding.....	47,475	—	—	47,475
Other.....	75,174	45,372	47,810	168,356
Totals, Taxes.....	2,323,117	549,845	433,126	3,306,088
Licences, Permits and Fees—				
Motor-vehicle.....	—	58,198	—	58,198
Other.....	3,430	17,130	12,912	33,472
Totals, Licences, Permits and Fees.....	3,430	75,328	12,912	91,670

1.—Combined Revenue of All Governments, 1948 and 1949—concluded

Year and Item	Federal	Provincial	Municipal ¹	Total
	\$'000	\$'000	\$'000	\$'000
1949—concluded				
Public domain.....	1,790	92,428	—	94,218
Public utility contributions to municipalities.....	—	—	23,718	23,718
Post Office (net).....	1,933	—	—	1,933
Bank of Canada profits.....	20,442	—	—	20,442
Bullion and coinage.....	4,524	—	—	4,524
Miscellaneous revenue.....	55,982 ²	13,241	42,079	111,302
Totals, Revenue (excluding inter-governmental transfers).....	2,411,218	730,842	511,835	3,653,895
Inter-governmental Transfers—				
Federal subsidies to provinces.....	—	19,109	—	19,109
Provincial subsidies to municipalities.....	—	—	9,569	9,569
Transitional grant to Newfoundland.....	—	6,500	—	6,500
Dominion-Provincial Taxation Agreements.....	—	79,780	—	79,780
Share of income tax on power utilities.....	—	1,515	—	1,515
Nova Scotia highway tax.....	—	251	—	251
Manitoba Municipal Commissioner's levy.....	—	527	—	527
Interest on Common School Fund and School Lands Fund Debentures.....	—	1,466	—	1,466
Totals, Inter-governmental Transfers.....	—	109,148	9,569	118,717
Grand Totals, 1949.....	2,411,218	839,990	521,404	3,772,612

¹ Includes an estimate for Quebec.² Includes provincial profits from liquor control.³ Ex-

cludes personal property which is inseparable from other taxes.

⁴ Includes \$86,142,000, being excess of refunds over expenditure *re* expansion of industry.⁵ Includes \$31,596,000, being excess of refunds over expenditure *re* expansion of industry.

2.—Combined Revenue of All Governments, Exclusive of Inter-governmental Transfers, 1946-49

NOTE.—Figures for the fiscal years ended nearest Dec. 31.

Item	1946 ¹	1947 ¹	1948 ¹	1949 ^{1,2}
	\$'000	\$'000	\$'000	\$'000
Taxes—				
Corporation.....	690,995	670,600	646,296	732,380
Customs duties and import.....	239,568	295,737	223,786	226,403
Gasoline.....	109,510	113,195	124,305	137,759
General sales.....	334,699	416,308	440,502	481,343
Income—persons.....	670,779	659,932	762,749	622,104
Liquor ³	220,690	222,266	229,712	241,513
Succession duties.....	57,642	61,883	54,672	59,084
Real and personal property ⁴	284,909 ⁵	307,805 ⁵	341,265	373,759
Tobacco.....	190,269	183,977	199,398	215,912
Withholding.....	30,136	35,889	43,445	47,475
Other.....	201,027 ⁵	234,877	237,450	168,356
Totals, Taxes.....	3,030,224⁵	3,202,469⁵	3,303,580	3,306,088
Licences, Permits and Fees—				
Motor-vehicle.....	38,613	46,475	51,471	58,198
Other.....	29,107 ⁵	29,503	30,793	33,472
Totals, Licences, Permits and Fees.....	67,720⁵	75,978	82,264	91,670
Public domain.....				
Public utility contributions to municipalities.....	54,750	57,209	74,228	94,218
Post Office (net).....	16,380 ⁵	19,852 ⁵	20,415	23,718
Bank of Canada profits.....	9,076	9,867	3,011	1,933
Bullion and coinage.....	21,011	18,828	19,107	20,442
Miscellaneous revenue.....	2,098	1,731	3,253	4,524
Totals, Revenue (excluding inter-governmental transfers).....	313,390⁵	224,594⁵	168,330	111,302
Totals, Revenue (excluding inter-governmental transfers).....	3,514,619⁵	3,610,518⁵	3,674,188	3,653,895

¹ Includes an estimate of municipal statistics for Quebec.² Includes Newfoundland.³ In-

cludes provincial profits from liquor control.

⁴ Excludes personal property for municipal governments which is inseparable from other taxes.

3.—Combined Expenditure of All Governments, 1948 and 1949

NOTE.—Figures for the fiscal years ended nearest Dec. 31.

Year and Item	Federal	Provincial	Municipal ¹	Total
	\$'000	\$'000	\$'000	\$'000
1948				
Public Welfare—				
Health and hospital care.....	11,091	93,425	33,222	137,738
Labour and unemployment insurance.....	41,965	3,561	—	45,466
Relief.....	—	6,927	4,065	10,992
Old age pensions.....	64,296	29,308	334	93,938
Family allowances.....	272,608	—	—	272,608
Other.....	16,131	29,536	53,038	98,705
Totals, Public Welfare.....	406,031	162,757	90,659	659,447
Education.....	37,040	139,054	188,311	364,405
Transportation.....	119,810	257,738	90,155	467,703
Agriculture.....	67,879	22,092	—	89,971
Public domain.....	38,416	52,888	—	91,304
National defence.....	256,092	—	—	256,092
Veterans' pensions and aftercare.....	235,578	—	—	235,578
Expansion of industry.....	2	—	—	—
Price control and rationing.....	30,721	—	—	30,721
Debt charges, net (excluding retirements).....	395,242	51,491	28,403	475,136
Other expenditure.....	212,595	89,794	147,868	450,257
Totals, Expenditure (excluding inter-governmental transfers)	1,799,404	775,814	545,396	3,120,614
Inter-governmental Transfers—				
Federal subsidies to provinces.....	17,095	—	—	17,095
Provincial subsidies to municipalities.....	—	10,930	—	10,930
Dominion-Provincial Taxation Agreements.....	84,387	—	—	84,387
Nova Scotia highway tax.....	—	—	321	321
Manitoba Municipal Commissioner's levy.....	—	—	1,314	1,314
Interest on Common School Fund and School Lands Fund Debentures.....	1,466	—	—	1,466
Totals, Inter-governmental Transfers.....	102,948	10,930	1,635	115,513
Grand Totals, 1948	1,902,352	786,744	547,031	3,236,127
1949²				
Public Welfare—				
Health and hospital care.....	19,451	138,549	36,579	194,579
Labour and unemployment insurance.....	48,310	3,872	—	52,182
Relief.....	—	13,267	5,487	18,754
Old age pensions.....	89,725	38,181	—	127,906
Family allowances.....	299,347	—	—	299,347
Other.....	20,482	31,754	65,576	117,812
Totals, Public Welfare.....	477,315	225,623	107,642	810,580
Education.....	28,691	157,346	220,553	406,590
Transportation.....	157,612	254,597	101,813	514,022
Agriculture.....	82,339	25,361	—	107,700
Public domain.....	53,574	50,028	—	103,602
National defence.....	372,596	—	—	372,596
Veterans' pensions and aftercare.....	202,466	—	—	202,466
Expansion of industry.....	2	—	—	—
Price control and rationing.....	2,748	—	—	2,748
Debt charges, net (excluding retirements).....	406,766	52,593	30,800	490,159
Other expenditure.....	226,480	108,381	158,298	493,159
Totals, Expenditure (excluding inter-governmental transfers)	2,010,587	873,929	619,106	3,503,622
Inter-governmental Transfers—				
Federal subsidies to provinces.....	19,170	—	—	19,170
Provincial subsidies to municipalities.....	—	12,674	—	12,674
Transitional grant to Newfoundland.....	6,500	—	—	6,500
Dominion-Provincial Taxation Agreements.....	76,881	—	—	76,881
Share of income tax on power utilities.....	1,375	—	—	1,375
Grants in lieu of taxes on Federal property.....	200	—	—	200
Nova Scotia highway tax.....	—	—	246	246
Manitoba Municipal Commissioner's levy.....	—	—	473	473
Interest on Common School Fund and School Lands Fund Debentures.....	1,466	—	—	1,466
Totals, Inter-governmental Transfers.....	105,592	12,674	719	118,985
Grand Totals, 1949	2,116,179	886,603	619,825	3,622,607

¹ Includes an estimate for Quebec.² Refunds exceeded expenditure.³ Includes Newfoundland.

4.—Combined Expenditure of All Governments, Exclusive of Inter-governmental Transfers, 1946-49

NOTE.—Figures for the fiscal years ended nearest Dec. 31. Estimates of municipal statistics for Quebec are included for each year.

Item	1946	1947	1948	1949 ¹
	\$'000	\$'000	\$'000	\$'000
Public Welfare—				
Health and hospital care.....	76,815 r	100,079 r	137,738	194,579
Labour and unemployment insurance.....	45,208	41,502	45,466	52,182
Relief.....	8,070 r	10,032 r	10,992	18,754
Old age pensions.....	63,884 r	80,820 r	93,938	127,906
Family allowances.....	246,837	264,780	272,608	299,347
Other.....	65,506 r	81,145 r	98,705	117,812
Totals, Public Welfare.....	506,320 r	578,358 r	659,447	810,580
Education.....	240,457 r	282,227 r	364,405	406,590
Transportation.....	243,124 r	364,495 r	467,703	514,022
Agriculture.....	94,551	128,749	89,971	107,700
Public domain.....	45,817	69,727 r	91,304	103,602
National defence.....	365,938	154,263	256,092	372,596
Veterans' pensions and aftercare.....	584,655	311,856	235,575	202,466
Price control and rationing.....	177,480	59,011	30,721	2,748
Debt charges, net (excluding retirements).....	519,564 r	495,064 r	475,136	490,159
Other expenditures.....	319,263 r	398,738 r	450,257	493,159
Totals, Expenditure (excluding inter-governmental transfers).....	3,097,169 r	2,842,488 r	3,120,614	3,503,622

¹ Includes Newfoundland.

Combined Debt.—It should be noted that the increased direct and indirect debt reflected in 1949 is partially attributable to the inclusion for the first time of debt of the provincial and municipal governments of Newfoundland amounting to slightly less than \$13,300,000. Debt of each level of government can be ascertained for 1948 and 1949 by reference to Table 6.

5.—Combined Debt of All Governments, 1946-49

NOTE.—Figures for fiscal years ended nearest Dec. 31. Estimates for Quebec are included for each year.

Item	1946	1947	1948	1949 ¹
	\$'000	\$'000	\$'000	\$'000
Direct Debt—				
Funded debt.....	17,303,786	16,764,727 r	16,810,054	16,763,373
Less Sinking Funds.....	375,359	373,729 r	399,158	499,992
Net funded debt.....	16,928,427	16,390,998 r	16,410,896	16,263,381
Treasury bills.....	1,314,832	1,340,457	1,339,872	1,339,681
Savings deposits.....	100,108	101,914	104,761	107,746
Temporary loans.....	30,124	65,417 r	71,409	87,896
Other direct liabilities.....	2,198,473	2,310,157 r	2,196,743	2,372,761
Totals, Direct Debt (less Sinking Funds).....	20,571,964	20,208,943 r	20,123,681	20,171,465
Indirect Debt—				
Guaranteed bonds.....	834,102	1,066,342 r	1,194,630	1,405,206
Less Sinking Funds.....	14,183	24,326	31,331	29,738
Net guaranteed bonds.....	819,919	1,042,016 r	1,163,299	1,375,468
Guaranteed bank loans and other indirect liabilities.....	45,882	57,531	80,637	116,507
Totals, Indirect Debt (less Sinking Funds).....	865,801	1,099,547 r	1,243,936	1,491,975
Grand Totals.....	21,437,765	21,308,490 r	21,367,617	21,663,440

¹ Includes Newfoundland.

6.—Composition of Total Debt of All Governments, 1948 and 1949

NOTE.—Figures for fiscal years ended nearest Dec. 31.

Item	Federal	Provincial	Municipal ¹	Total	Deduct Inter-governmental Debt	Combined Governmental Debt
1948	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Direct Debt—						
Funded debt.....	14,092,268	1,766,978	959,511	16,818,757	8,703	16,810,054
Less Sinking Funds.....	—	264,059	135,099	399,158	—	399,158
Net funded debt.....	14,092,268	1,502,919	824,412	16,419,599	8,703	16,410,896
Treasury bills.....	1,300,000 ²	137,353	1,547	1,438,900	99,028	1,339,872
Savings deposits.....	37,741	67,020	—	104,761	—	104,761
Temporary loans.....	—	7,332	64,027	71,409	—	71,409
Other direct liabilities....	2,030,626 ³	105,517	119,207	2,255,350	58,607	2,196,743
Totals, Direct Debt (less Sinking Funds)	17,460,635	1,820,191	1,009,193	20,290,019	166,338	20,123,681
Indirect Debt—						
Guaranteed bonds.....	645,588 ⁴	502,423	58,120	1,206,131	11,501	1,194,630
Less Sinking Funds.....	19,504 ⁵	3,463	11,114	34,081	2,750	31,331
Net guaranteed bonds....	626,084	498,960	47,006	1,172,050	8,751	1,163,299
Loans under the Municipal Improvement Assistance Act, 1938.....	—	4,723	—	4,723	4,723	—
Guaranteed bank loans and other indirect liabilities.....	28,719 ⁶	60,826	—	89,545	8,908	80,637
Totals, Indirect Debt (less Sinking Funds)	654,803	564,509	47,006	1,266,318	22,382	1,243,936
Grand Totals, 1948..	18,115,438	2,384,700	1,056,199	21,556,337	188,720	21,367,617
1949						
Direct Debt—						
Funded debt.....	13,750,135	1,955,095	1,066,284	16,771,514	8,141	16,763,373
Less Sinking Funds.....	17,203	343,986	138,803	499,992	—	499,992
Net funded debt.....	13,732,932	1,611,109	927,481	16,271,522	8,141	16,263,381
Treasury bills.....	1,300,000 ²	133,083	1,802	1,434,885	95,204	1,339,681
Savings deposits.....	38,755	68,991	—	107,746	—	107,746
Temporary loans.....	—	9,998	77,898	87,896	—	87,896
Other direct liabilities....	2,227,977 ³	118,760	121,745	2,468,482	95,721	2,372,761
Totals, Direct Debt (less Sinking Funds)	17,299,664	1,941,941	1,128,926	20,370,531	199,066	20,171,465
Indirect Debt—						
Guaranteed bonds.....	676,728 ⁴	681,506	58,110	1,416,344	11,138	1,405,206
Less Sinking Funds.....	17,189 ⁵	3,625	11,861	32,675	2,937	29,738
Net guaranteed bonds....	659,539	677,881	46,249	1,383,669	8,201	1,375,468
Loans under the Municipal Improvement Assistance Act, 1938.....	—	4,470	—	4,470	4,470	—
Guaranteed bank loans and other indirect liabilities.....	70,217 ⁶	55,519	—	125,736	9,229	116,507
Totals, Indirect Debt (less Sinking Funds)	729,756	737,870	46,249	1,513,875	21,900	1,491,975
Grand Totals, 1949...	18,029,420	2,679,811	1,175,175	21,884,406	220,966	21,663,440

¹ Includes an estimate for Quebec.² Includes \$100,000,000 deposit certificates and \$750,000,000 six months' treasury notes.³ Excludes provincial debt accounts.⁴ Includes both guaranteed and unguaranteed issues of the Canadian National Railways as at Mar. 31 to correspond with fiscal year end of the Federal Government.⁵ Includes proceeds from sale of mortgaged properties held by the Canadian National Railways.⁶ Includes contingent liability in respect of Federal Government guarantee of deposits maintained by chartered banks in the Bank of Canada, miscellaneous guarantees the amounts of which were not finally determined or were indeterminate at the close of the fiscal year, and contingent liabilities of the Canadian National Railways.

Section 2.—Federal Public Finance*

A sketch of public finance, from the French régime to the outbreak of World War I appears at pp. 742-743 of the 1941 Year Book, while detailed sketches *re* tax changes from 1914 to 1938 will be found in issues of the Year Book beginning with the 1926 edition. An outline of the financing of Canada's war effort, including the more important changes in taxation during the war years from 1939 to 1945 is given at pp. 918-923 of the 1945 Year Book. Budgets for the fiscal years 1945-46 to 1950-51 will be found in preceding Year Books commencing with the 1946 edition. The more important post-war changes are given in the following summary.

Post-War Federal Finance.—As soon as victory was gained in Europe in May 1945, attention was focused on the problems of changing from a wartime economy to production for civilian needs while continuing the war against Japan. To encourage and facilitate the rapid resumption of production for home and export markets and to avoid uncertainty and delay in the expansion of essential civilian production an Order in Council was passed to become effective on May 14, 1945, rescinding or reducing a number of taxes that had been imposed during the War to discourage production and purchasing. By this Order, the sales tax and the war exchange tax were removed on most building materials, the war exchange tax was rescinded on machinery and apparatus used in the manufacture or production of goods, and also the 25 p.c. excise tax on electrical or gas fixtures and appliances. The wartime tax on automobiles which ranged from 25 p.c. on the first \$900 to 80 p.c. on the value in excess of \$1,200 was reduced to a flat 10 p.c. and the 25 p.c. excise tax on cameras, radios and phonographs was reduced to 10 p.c.

The Budget for the year 1945-46, presented to Parliament in October 1945, was, to a considerable extent, a war budget because war and demobilization expenses continued for some time at a very high level. The forecast of expenditure for 1945-46 was \$4,650,000,000, about \$670,000,000 below the wartime peak. The forecast of revenue, before tax changes, was \$2,500,000,000 leaving a deficit of \$2,150,000,000. Despite this expected deficit a number of important tax changes were announced to reduce costs, restore incentives, promote efficiency and encourage investment in the expansion of industry. These tax changes included the repeal of the war exchange tax and the exemption from the sales tax of machinery and apparatus used directly in the manufacture or production of goods. The tax levied on business proprietors and partnerships, under the Excess Profits Tax Act, was reduced and the minimum standard profits for all business was increased for purposes of computing the excess profits tax. As an interim step towards the ultimate abolition of this tax, the 20 p.c. refundable portion of the excess profits tax was abolished and the rate of tax on excess profits of corporations was reduced from 100 p.c. to 60 p.c. These changes in the excess profits tax became effective from Jan. 1, 1946. The individual income tax was also abated by 16 p.c. commencing on Oct. 1, 1945 and resulted in a reduction of 4 p.c. in the tax liability for 1945.

Experience proved that the forecasts of revenue and expenditure for 1945-46 were too low and the deficit of \$2,123,000,000 was slightly less than had been anticipated and was financed by the Ninth Victory Loan, launched towards the end of 1945. This deficit brought the net debt of Canada to the all-time peak of \$13,421,000,000 and marked the end of wartime budgeting.

* Revised, except as otherwise stated, under the direction of Dr. W. C. Clark, C.M.G., Deputy Minister, Department of Finance, Ottawa, Ont.

The Budget for 1946-47, presented to Parliament in June 1946, proposed further tax reductions. Personal income tax structure was revised completely with lower rates and higher exemptions of \$750 for single status and \$1,500 for married status becoming effective from Jan. 1, 1947. From this date also the excess profits tax was removed from partnerships and sole proprietors and the rate on corporations was reduced to 15 p.c. on profits in excess of 116 $\frac{2}{3}$ p.c. of standard profits. The flat rate of 22 p.c. on profits levied under the Excess Profits Tax Act was repealed and the corporation income tax rate was changed from 18 p.c. to 30 p.c. resulting in a 10 p.c. reduction in the combined over-all flat rate on corporations, in keeping with the Federal Government's obligation under the wartime tax agreements with the provinces.

During the fiscal year 1946-47, all wartime tax agreements between the Federal Government and the provinces expired. Under these agreements the provinces, in return for compensation, suspended their taxes on corporations and on personal income tax. It was apparent that without new agreements several provinces would be faced with difficult budget problems and a chaotic tax situation was likely to arise. When complete agreement could not be reached on a comprehensive plan put forward by the Federal Government for renewal and extension of these agreements a further offer was made in the Budget of June 1946, which the individual provinces could choose to accept or reject. As a result of this offer the Dominion-Provincial Tax Rental Agreements were completed in 1947 with all provinces except Ontario and Quebec, and with Newfoundland in 1949, when it became a province. These Agreements are dealt with in detail in the 1951 Year Book at pp. 1005-1008. As a corollary to that part of the offer which dealt with succession duties it was necessary for the Federal Government to double its rates of succession duties commencing Jan. 1, 1947, and to allow a credit up to one-half the federal duty for duties paid to a province.

Although a deficit had been forecast for 1946-47 very buoyant revenue resulted in a surplus of nearly \$374,000,000 for the year, reflecting the rapid and highly successful transition from a wartime to a peacetime economy.

The Budget for 1947-48, presented to Parliament in April 1947, continued the program of gradual tax reduction. A new and lower schedule of rates on personal incomes was introduced to become effective on July 1, 1947, the excess profits tax was discontinued after Dec. 31, 1947, and the excise tax of 3 cents per gallon on gasoline was repealed from Apr. 1, 1947.

During 1947, the drain on Canada's reserve of United States dollars increased very rapidly as a result of the large capital expansion program and the high level of purchasing power in Canada and the inability to convert earnings in sterling into United States dollars. As a result, restrictions were placed on certain imports from the United States and, effective from Nov. 18, 1947, a number of new or increased excise taxes were imposed on goods manufactured in or imported into Canada. These taxes were levied on automobiles, cameras, radios and phonographs, electrical appliances, refrigerators, firearms, outboard motors and motorcycles but the excise tax on sugar and the sales tax on electricity and gas used in dwellings were repealed.

The accounts for 1947-48 finally showed a surplus for the year and the net debt was reduced by the amount of \$676,000,000.

Because of continuing inflationary pressures and the desirability of budgeting for surpluses while times were good, the Budget of 1948-49, presented to Parliament in May 1948, proposed no general tax reduction. The Income Tax Act was amended

to allow an additional exemption of \$500 to taxpayers over 65 years of age and the sales tax was amended to exempt substantially food items not previously exempt. In addition, excise taxes on admission to places of amusement and on expenditure in other places of entertainment as well as the tax on pari-mutuel bets were repealed. The Succession Duty Act, as amended effective from Jan. 1, 1948, exempted from duty all estates under \$50,000. Changes were made also in the customs tariff in accordance with the General Agreement on Tariffs and Trade concluded at Geneva in 1947.

Canada's exchange difficulties improved sufficiently to permit the withdrawal on July 31, 1948, of all the special excise taxes levied the previous November.

The final accounts for the year 1948-49 showed expenditure of \$2,176,000,000, the lowest in the post-war period under review. Revenue for the year amounted to \$2,771,000,000, resulting in a surplus of \$595,000,000.

The Budget for 1949-50, presented to Parliament in March 1949, brought further important tax reductions. Effective from Jan. 1, 1949, the exemptions for personal income tax were raised to \$1,000 for single status and \$2,000 for married status and the schedule of rates was reduced for all levels of taxable income. The flat rate of 30 p.c. on corporations was changed to 10 p.c. on profits up to \$10,000 and 33 p.c. on profits in excess of \$10,000. As a step towards removing the double taxation of corporate earnings a provision was introduced permitting individuals to deduct from their income tax an amount equal to 10 p.c. of their net dividend income from Canadian taxpaying corporations. The excise taxes on soft drinks, candy and chewing gum, transportation tickets and long-distance telephone calls, telegrams and cables were repealed. The excise taxes on a group of items including toilet articles, luggage, smokers' supplies and matches, were reduced to 10 p.c. The 25 p.c. retail purchase tax on jewellery, clocks, watches, plated-ware and similar items was changed to a 10 p.c. excise tax on the manufacturer's price.

As Parliament was dissolved before the tax changes proposed in the Budget became law these measures were introduced again to Parliament in October 1949, approximately in the same form. In addition, the sales tax was removed from fuel-oil used for heating or lighting in homes or in industry, effective from Oct. 20, 1949.

Increased costs of social security and national defence and the entry of Newfoundland into Confederation resulted in the fiscal year 1949-50 showing a reversal in the trend of lower expenditure for each year following the end of the War. Expenditure for the year amounted to \$2,449,000,000, an increase of \$273,000,000 over the previous year. Revenue amounted to \$2,580,000,000, giving a surplus of \$131,000,000 for the fiscal year 1949-50.

The Budget for 1950-51, presented to Parliament in March 1950, forecast almost equal expenditure and revenue of \$2,410,000,000 and \$2,430,000,000, respectively, for the fiscal year. As a result, only minor tax changes were proposed, including a provision, under the Income Tax Act, for closely held companies to pay a 15 p.c. tax on their undistributed income. Changes were made also under the Excise Tax Act by adding ice cream and drinks prepared from fresh milk to the items

exempt from the sales tax. Exempted also from the sales tax were purchases by certain institutions caring for orphans or the incapacitated and the 5 p.c. excise tax on toilet soap was repealed.

The Budget presented in March 1950, ended one phase of post-war financing. Special post-war demobilization and transitional expenditure was nearly completed but the Government was faced with heavy fixed charges for interest on the public debt, national defence and social security. The Minister of Finance pointed out that the prospects were for Budgets to continue to call for expenditure of about \$2,400,000,000 for some years to come. On the other hand, taxes had been reduced substantially from the wartime level and foreseeable revenue for future years appeared little more than adequate to cover expenditure. All this was changed, however, by the outbreak of war in Korea in June 1950.

In September 1950, new budgetary proposals were presented by the Minister of Finance to meet the rapid step-up in defence expenditure and the sharp increase in economic activity and inflationary pressures which followed the commencement of war in Korea. To maintain a pay-as-you-go policy, a number of tax increases were introduced to cover the increased defence expenditure. The corporation income tax was increased from 10 p.c. to 15 p.c. on the first \$10,000 of profits and from 33 p.c. to 38 p.c. on profits over \$10,000. Taxes on alcoholic beverages were increased by raising the tax on spirits from \$11 to \$12 per gallon and the tax on malt from 16 to 21 cents per lb. Under the excise taxes all items formerly subject to a tax at the rate of 10 p.c. became taxable at 15 p.c. and a new tax of 30 p.c. was imposed on soft drinks, candy and chewing gum.

These new taxes, together with increased revenue as a result of rising prices and increased economic activity, were expected to bring revenue for 1950-51 to a level barely sufficient to cover expenditure. However, the effect of inflationary pressures was greater than expected with the result that revenue amounting to \$3,113,000,000 exceeded expenditure of \$2,901,000,000, giving a budgetary surplus of \$212,000,000 for 1950-51.

The Budget for 1951-52*, presented to Parliament in April 1951, indicated that sources would have to be found to produce \$375,000,000 additional revenue and a defence surtax of 20 p.c. for this purpose was imposed on incomes of individuals and corporations. Because it could only be applied to deductions from salary and wages starting on July 1, 1951, the surtax on personal income was levied at 10 p.c. of total income in 1951. For corporations the surtax applied to profits in excess of \$10,000 only, raising the rate of tax on these profits to 45.6 p.c. Further revenue was derived from the corporation income tax as a result of a provision designed to combat inflationary pressures which deferred, for four years, capital cost allowances on certain capital assets acquired after Apr. 10, 1951. The tax on cigarettes was increased by \$1.50 per 1,000; on manufactured tobacco it was increased by 48 cents per lb., although part of this increase was offset by the repeal of the tax on cigarette papers and tubes. All items formerly subject to an excise tax of 15 p.c. became

* Copies of the 1951-52 Budget may be obtained on application from the Department of Finance Ottawa, Ont.

taxable at 25 p.c. and a new 15 p.c. tax was levied on refrigerators, stoves and washing machines. The 30 p.c. excise tax on candy, confectionery and chewing gum, proved by experience to be too severe, was reduced to 15 p.c. A very important change was made by increasing the sales tax rate from 8 p.c. to 10 p.c.

The Old Age Security Act passed in November 1951, provided for pensions to persons 70 years of age or over; and it became necessary to levy taxes to provide a fund from which these pensions would be paid. Under authority of the Old Age Security Act, a tax of 1 p.c. with a maximum of \$30 was levied on personal incomes for 1952 to become 2 p.c. with a maximum of \$60 thereafter. A tax of 2 p.c. was levied on the income of corporations commencing Jan. 1, 1952. The sales tax, levied under the Excise Tax Act, was reduced from 10 p.c. to 8 p.c. commencing Jan. 1, 1952, but a 2 p.c. sales tax was levied as an old age security tax from the same date.

At the end of 1951-52 the accounts showed that the tax structure had produced total revenue of \$3,981,000,000 (\$4,007,000,000 including the revenue from old age security taxes). Expenditure for the year amounted to \$3,733,000,000, giving a budgetary surplus of \$248,000,000.

The Budget for 1952-53, presented to Parliament in April 1952, consolidated and adjusted some of the temporary tax increases introduced in the previous year. The 20 p.c. defence surtax on personal income was repealed but a new schedule of rates was introduced effective from July 1, 1952, which incorporated over two-thirds of the weight of the surtax. The rate of tax on corporation income was changed to incorporate the 20 p.c. defence surtax as well as the 5 p.c. corporation income tax formerly levied by provinces which had entered into tax rental agreements. As a result of these changes the rates of tax on 1952 incomes of corporations (not including the 2 p.c. old age security tax) became 20 p.c. on the first \$10,000 plus 50 p.c. on the excess over \$10,000 with a credit against the tax of an amount equal to 5 p.c. of the profits earned in provinces which continue to levy a corporation income tax. The tax on cigarettes was reduced by \$1.50 per 1,000 to return this tax to its previous level, and minor adjustments were made in the other tobacco taxes. The tax on goods bearing an excise tax of 25 p.c. under the Excise Tax Act was reduced to 15 p.c., the tax of 30 p.c. on soft drinks was reduced to 15 p.c., and the 15 p.c. tax on stoves, refrigerators and washing machines was repealed.

Subsection 1.—Balance Sheets of the Federal Government

Table 7 shows the balance sheets of the Federal Government for 1949-52 but these figures are not on a basis comparable to those in earlier Year Books. On the asset side, accounts classified as *active* assets are shown; these represent cash or investments that are interest-producing or have a readily realizable cash value. On the liability side, such liabilities are given as have been ascertained and brought into the accounts. No liability is shown for interest accrued but not due, nor for current obligations incurred for supplies or services but not paid for at the end of the fiscal year. Indirect liabilities under guarantees are not reflected in the balance sheets, but are set out in a special schedule. (See p. 1063.)

The excess of liabilities over active assets, designated the *net debt*, is analysed in a statement appended to the Balance Sheet and is apportioned to non-active assets, which include capital expenditure and non-productive investment, and to accumulated deficits in the Consolidated Deficit Account.

7.—Balance Sheet of the Federal Government as at Mar. 31, 1949-52

Assets and Liabilities	1949	1950	1951	1952
	\$	\$	\$	\$
Active Assets—				
Cash in current and special deposits.....	90,671,289	143,420,566	88,949,781	21,229,762
Other Liquid Assets—				
Foreign Exchange Control Board—				
Cash and securities.....	1,071,192,875	1,250,000,000	1,681,165,473	1,799,403,755
Securities investment account.....	455,769,619	18,690,528	9,644,206	58,896,205
Working Capital Advances—				
Departmental.....	21,919,461	41,714,212	22,662,972	117,729,875
Crown corporations.....	20,705,421	16,818,487	17,818,487	23,927,192
Totals, Liquid Assets.....	1,660,258,665	1,470,643,793	1,820,240,919	2,021,188,789
Loans to, and Investments in Crown Agencies—				
Bank of Canada capital stock.....	5,920,000	5,920,000	5,920,000	5,920,000
Central Mortgage and Housing Corporation—capital and loans.....	115,500,000	206,960,455	286,349,091	359,973,294
Canadian Farm Loan Board.....	22,172,357	24,122,107	26,021,852	27,321,572
Railway and steamship companies.....	764,792,373	743,829,650	764,017,524	905,865,398
Miscellaneous.....	150,551,534	174,138,188	174,952,464	176,637,641
Other Loans and Investments—				
To provincial and municipal governments.	102,369,003	98,337,507	95,157,898	91,028,508
To United Kingdom and other governments.....	1,923,783,303	2,028,424,300	1,985,066,813	1,925,668,362
Canada's Subscription to Capital of—				
International Monetary Fund.....	300,003,150	322,502,497	322,502,497	322,502,497
International Bank for Reconstruction and Development.....	65,035,750	70,694,043	70,694,043	70,864,349
Miscellaneous.....	187,415,470	191,006,946	204,535,002	215,676,646
Totals, Loans and Investments.....	3,637,542,940	3,865,935,693	3,935,217,174	4,098,458,267
Sinking Fund.....	—	7,991,103	22,701,814	25,902,746
Provincial debt accounts.....	2,296,152	2,296,152	2,296,152	2,296,152
Deferred charges, including unamortized discounts and commissions on loans.....	65,784,892	62,561,974	60,049,489	268,293,455
Sundry suspense accounts.....	54,256,183	17,585,720	45,353,920	127,117,108
Gross Totals, Active Assets.....	5,420,138,832	5,427,014,435	5,885,859,468	6,543,254,517
Less: Reserve for possible losses on ultimate realization of active assets.....	245,869,188	320,867,388	395,867,388	470,867,388
Net Totals, Active Assets.....	5,174,269,644	5,106,147,047	5,489,992,080	6,072,387,129
Non-Active Assets—				
Capital expenditure.....	1,051,576,513	1,074,433,447	1,089,902,701	1,103,805,519
Other.....	564,329,772	590,261,999	581,846,992	552,827,423
Consolidated deficit account.....	10,160,227,867	9,979,913,753	9,761,565,255	9,528,648,605
Totals, Net Debt.....	11,776,134,152	11,644,609,199	11,433,314,948	11,185,281,547
Totals, Gross Debt.....	16,950,403,796	16,750,756,246	16,923,307,028	17,257,668,676
Liabilities —¹				
Floating debt.....	450,699,831	505,564,076	486,388,748	558,111,586
Deposit and trust accounts.....	107,500,584	132,720,076	122,019,091	131,844,275
Insurance pension and guaranty accounts.....	718,015,689	810,871,203	979,287,649	1,416,278,517
Deferred credits.....	4,350,636	10,978,984	11,607,034	105,183,065
Sundry suspense accounts.....	59,617,634	70,804,460	258,436,251	304,452,433
Provincial debt accounts.....	11,919,969	11,919,969	11,919,969	11,919,969
Reserve for conditional benefits — Veterans' Land Act, 1942.....	13,262,872	19,758,517	26,868,640	34,468,380
Funded debt, unmatured.....	15,585,036,580	15,188,138,961	15,026,779,646	14,695,410,451
Totals, Liabilities or Gross Debt.....	16,950,403,795	16,750,756,246	16,923,307,028	17,257,668,676

¹ Direct liabilities only. Indirect liabilities or guarantees by the Government of Canada are given on p. 1063.

Subsection 2.—Revenue and Expenditure

In the fiscal year ended Mar. 31, 1952, Federal Government revenue amounted to \$3,981,000,000 compared with \$3,113,000,000 in the previous year, an increase of \$868,000,000. Expenditure amounted to \$3,733,000,000 compared with \$2,901,000,000 in the previous year, an increase of \$832,000,000. The surplus of revenue over expenditure for the fiscal year was \$248,000,000.

Tax revenue was \$872,000,000 greater and non-tax revenue \$49,000,000 greater than in the previous fiscal year but special receipts and other credits showed a decrease of \$51,000,000.

Expenditure on national defence in 1951-52 increased by \$633,000,000 over the previous year and amounted to 38 p.c. of total expenditure for the year. Added to the increase in expenditure in 1951-52 were two items not found in previous years; these were an adjustment amounting to \$88,000,000 required to place interest on the public debt on an accrual basis and a transfer of almost \$50,000,000 to cover the deficit in the old age security fund.

8.—Details of Revenue, Years Ended Mar. 31, 1949-52

Revenue	1949	1950	1951	1952
	\$	\$	\$	\$
Ordinary Revenue—				
Tax Revenue—				
Customs import duties.....	222,975,471	225,877,683	295,721,750	346,364,563
Excise duties.....	204,651,969	220,564,504	241,046,174	217,939,983
Income tax.....	1,297,999,404	1,272,650,191	1,513,135,510	2,161,373,408
Excess profits tax.....	44,791,918	—1,788,388	10,140,910	2,364,909
Sales tax (net).....	377,302,763	403,437,159	460,120,405	573,470,562
Succession duties.....	25,549,777	29,919,780	33,599,089	38,207,985
Other taxes.....	262,870,974	172,456,150	231,586,061	318,053,672
Totals, Tax Revenue.....	2,436,142,276	2,323,117,079	2,785,349,899	3,657,775,082
Non-Tax Revenue—				
Post Office.....	80,604,216	84,511,786	90,443,216	104,610,122
Return on investments ¹	107,888,905	91,528,987	89,529,233	117,621,906
Bullion and coinage.....	3,253,179	4,523,656	4,708,370	4,838,495
Other.....	21,201,251	25,034,929	48,667,563	54,901,137
Totals, Non-Tax Revenue.....	212,947,551	205,599,358	233,348,382	281,971,660
Totals, Ordinary Revenue.....	2,649,089,827	2,528,716,437	3,018,698,281	3,939,746,742
Special Receipts (sundry receipts and credits)	119,854,831	51,325,855	92,143,943	41,085,866
Other Credits—				
Refunds on capital account.....	2,325,439	66,652	124,990	70,653
Credits to non-active accounts.....	124,978	31,671	1,568,734	5,391
Totals, Other Credits.....	2,450,417	98,323	1,693,724	76,044
Grand Totals, Revenue.....	2,771,395,075	2,580,140,615	3,112,535,948	3,980,908,652

¹ Includes interest on investments, profits of the Bank of Canada and other items.

9.—Details of Expenditure, Years Ended Mar. 31, 1949-52

Expenditure	1949	1950	1951	1952
	\$	\$	\$	\$
Finance.....	701,178,588	745,239,512	752,572,062	873,613,548
Public Debt Charges.....				
Interest on public debt.....	465,137,958	439,810,335	485,217,500	519,933,151 ¹
Annual amortization of bond discounts and commissions.....	8,517,772	9,733,818	12,508,005	9,665,295
Servicing of public debt.....	550,913	477,766	443,516	534,889
Cost of loan flotation.....	1,237,379	811,805	846,278	1,051,474
Totals, Debt Charges.....	475,214,021	450,859,724	459,020,299	531,034,809
Subsidies to provinces.....	17,094,882	19,189,753	18,734,789	20,108,103
Transitional grant to Newfoundland.....	...	6,500,000	6,500,000	6,500,000
Tax Rental Agreements.....	84,338,923	76,380,713	94,122,887	96,867,745
Sections 7 of the Tax Rental Agreements Act.....	—	1,376,400	4,565,555	3,732,288
Government contribution to Civil Service superannuation account.....	4,050,000	5,461,544	81,831,262	110,910,777
Reserve for possible losses on realization of active assets.....	75,000,000	75,000,000	75,000,000	75,000,000
Premium, discount and exchange.....	110,805	19,740,244	—	—
Assumption of part of Newfoundland debt under terms of union.....	—	68,222,609	—	—
Cancellation of Canadian Farm Loan Board capital stock.....	—	250	255	—
Grants to universities.....	—	—	—	6,993,000 ²
Grants re Red River Valley flood.....	—	—	12,500,000	—
Write-down from active to non-active assets.....	—	8,425,120	—	—
Other.....	45,322,157	19,554,155	20,297,075	22,467,000 ²
Agriculture.....	61,772,531	75,046,567	142,785,183	67,134,389
Western drought area relief.....	9,042,559	13,575,253	4,708,409	3
Canadian Wheat Board.....	—	—	65,000,000	—
Freight assistance of western feed grains.....	18,153,585	16,764,011	15,637,736	14,999,240
Other.....	34,576,387	44,707,303	57,438,988	52,135,149
Auditor General's Office.....	533,092	561,804	573,777	601,128
Citizenship and Immigration ⁴.....	...	17,701,414	20,672,564	23,240,788
Civil Service Commission.....	1,364,297	1,512,351	1,580,319	1,691,663
Chief Electoral Officer.....	287,092	4,456,108	276,925	367,736
Defence Production.....	...	...	...	30,978,479
Capital assistance to defence industry.....	...	...	...	22,694,911
Other.....	...	...	...	8,283,568
External Affairs.....	14,514,056	16,680,410	22,079,561	37,582,459
Membership in Commonwealth and International organization.....	2,048,075	2,669,173	2,960,752	2,724,000 ²
Assistance to other countries and international organizations.....	5,810,655	6,959,021	11,463,497	26,369,000 ²
Other.....	6,655,286	7,052,211	7,655,312	8,490,000 ²
Fisheries.....	5,423,415	7,586,370	8,964,464	8,733,025
Governor General and Lieutenant-Governors.....	242,350	274,025	244,239	275,114
Insurance.....	262,937	311,486	368,741	403,336
Justice, including penitentiaries.....	9,887,873	10,959,086	12,406,679	14,038,715
Labour.....	60,427,224	56,143,234	62,628,099	64,302,099
Unemployment Insurance Act, administration and government contribution.....	39,068,134	45,117,960	52,938,309	53,844,691
Government Annuities (payment required to maintain reserve).....	11,408,408	1,255,772	659,787	940,138
Other.....	9,950,682	9,769,508	9,030,003	9,517,270
Legislation.....	3,763,152	5,229,174	4,710,966	5,945,263
Mines and Resources ⁴	47,498,079	...	...	...
Emergency gold mining assistance.....	9,433,494	6	6	6
Reduction of seed grain and relief accounts.....	44,666	6	6	6
Other.....	38,019,919	...	...	...
Mines and Technical Surveys ⁴.....	...	25,356,752	17,556,401	27,751,836
Emergency gold mining assistance.....	7	13,715,779	7,114,214	11,841,000 ²
Dominion Coal Board.....	8	8	8	5,132,000 ²
Write-down from active to non-active assets.....	...	1,802,107	—	—
Other.....	...	9,338,866	10,442,187	10,779,000 ²
National Defence.....	268,804,813	384,879,008	782,457,272	1,415,473,862
Defence Appropriation Act.....	—	—	195,417,216	126,415,799
Other.....	268,804,813	384,879,008	587,040,056	1,289,058,063

For footnotes, see end of table, p. 1034.

9.—Details of Expenditure, Years Ended Mar. 31, 1949-52—concluded

Expenditure	1949	1950	1951	1952
	\$	\$	\$	\$
National Health and Welfare.....	359,613,619	423,320,122	448,852,907	498,752,115
General health grants.....	7,528,358	15,716,861	18,874,786	24,322,497
Family allowance.....	270,909,779	297,514,031	309,465,461	320,457,673
Old age pension and pensions to blind persons..	66,764,285	93,188,934	103,169,115	83,204,713
Deficit old age security fund.....	...	...	...	49,668,855
Other.....	14,411,197	16,900,893	17,343,545	21,098,377
National Revenue.....	49,323,139	50,604,219	48,460,884	54,063,557
Canadian Broadcasting Corporation.....	3,920,804	2,772,004	2,406,031	3,300,972
Other.....	45,402,335	47,832,215	46,055,853	46,762,585
Post Office.....	77,642,621	82,639,741	91,781,466	97,973,263
Prime Minister's Office.....	105,605	120,142	124,315	
Privy Council Office.....	4,350,616	4,008,269	4,125,791	
Federal District Commission.....	4,210,500	3,704,500	3,733,900	
Other.....	140,116	303,769	392,791	4,057,687
Public Archives.....	172,578	198,134	205,960	251,018
Public Printing and Stationery.....	753,345	866,069	706,201	1,103,156
Public Works.....	51,067,102	67,058,184	73,646,433	77,544,088
Reconstruction and Supply ³	4,780,519	...	...	...
National Film Board.....	1,958,542	6	6	6
Other.....	2,821,977	...	...	...
Resources and Development ⁴.....	...	25,388,855	31,200,626	34,432,805
National Film Board.....	10	2,122,854	2,307,805	2,662,333
Trans-Canada Highway contributions.....	...	...	6,868,887	12,566,028
Reduction in seed grain and relief accounts.....	7	19,580	...	...
Other.....	...	23,246,421	23,025,994	19,204,444
Royal Canadian Mounted Police.....	13,717,042	15,970,904	19,800,688	27,340,713
Secretary of State.....	1,558,514	1,600,450	2,064,965	2,399,468
Trade and Commerce.....	58,698,315	50,768,895	48,878,312	46,896,842
Canadian Wheat Board.....	4,454,250	4,470,531	2,535,942	...
Net Income deficit of Trans-Canada Airlines.....	...	...	1,325,206	...
National Research Council and Atomic Energy Control Board.....	13,081,928	16,169,600	18,013,509	25,079,896
Dominion Coal Board.....	2,164,173	4,356,816	3,560,795	...
Write-down of non-active Assets.....	2,243,106	...	...	...
Other.....	36,754,558	25,761,948	23,442,360	21,816,946
Transport.....	101,269,992	127,766,477	85,123,464	99,900,569
Net Income deficits—				
Canadian National Railways.....	33,532,741	42,043,027	3,261,235	15,031,996
Canadian National (West Indies) Steamships Limited.....	...	460,498	1,028,767	466,992
National Harbours Board.....	237,743	83,141	188,172	55,406
Prince Edward Island Car Ferry and Terminals.....	1,219,881	1,221,230	1,266,939	1,365,286
Trans-Canada Airlines.....	2,933,240	4,317,593	...	...
Loans and advances (Non-Active)—				
National Harbours Board.....	1,739,201	4,236,174	1,465,037	1,252,000 ²
Other, including Canadian Maritime Commission.....	61,607,186	75,404,814	77,913,314	81,729,000 ²
Veterans Affairs.....	276,879,498	246,377,400	216,392,434	216,026,529
Provision for reserve for conditional benefits under Veterans' Land Act.....	5,630,866	6,495,644	7,110,123	7,600,000 ²
Write-down of Soldier Settlement and Veterans Land Act Loans.....	1,000,108	11,769,927	13,618	13,000 ²
Other.....	270,248,530	228,111,829	209,268,893	208,414,000 ²
Grand Totals, Expenditure	2,175,892,334	2,448,615,662	2,901,241,698	3,732,875,250

¹ Includes \$37,510,068 adjustment required to place interest on public debt on accrual basis. ² To nearest thousand dollars.

³ Only a small charge for administration is applicable to 1952.

⁴ In 1950 the Department of Mines and Resources was reorganized into the three Departments—Citizenship and Immigration, Mines and Technical Surveys, and Resources and Development.

⁵ See Resources and Development. ⁶ See Mines and Resources. ⁷ See Trade and Commerce.

⁸ This department was dissolved in 1949. ⁹ See Reconstruction and Supply.

10.—Principal Items of Revenue, Years Ended Mar. 31, 1946-52

NOTE.—Figures for the years 1931-45, inclusive, are given at pp. 981-85 of the 1951 Year Book.

Year	Customs Duties	Excise Duties	Income Tax	Excess Profits Tax	Banks, Insurance Companies, etc.
	\$	\$	\$	\$	\$
1946.....	128,876,811	186,726,318	932,729,273 ¹	426,696,483 ¹	8,971,967
1947.....	237,355,397	196,043,816	939,458,244 ¹	442,497,443 ¹	9,706,739
1948.....	293,012,027	196,794,208	1,059,848,357	227,030,494	3,804,001
1949.....	222,975,471	204,651,969	1,297,999,404	44,791,918	4,036,050
1950.....	225,877,683	220,564,504	1,272,650,191	-1,788,388	4,435,828
1951.....	295,721,750	241,046,174	1,513,135,510	10,140,910	4,938,374
1952.....	346,364,563	217,939,983	2,161,373,408	2,364,909	5,595,930
	Sales and Other Excise Taxes	Succession Duties	Post Office	Interest on Investments ²	Total Revenue ³
	\$	\$	\$	\$	\$
1946.....	496,909,961	21,447,573	68,613,113	70,914,626	3,013,185,074
1947.....	579,023,601	23,576,071	72,978,339	69,438,880	3,007,876,313
1948.....	640,758,269	30,828,040	77,758,408	75,799,912	2,871,746,110
1949.....	636,137,688	25,549,777	80,604,216	107,888,905	2,771,395,075
1950.....	571,457,480	29,919,780	84,511,786	91,528,987	2,580,140,615
1951.....	686,768,092	33,599,089	90,443,216	89,529,233	3,112,535,948
1952.....	885,928,304 ⁴	38,207,985	104,610,122	117,621,906	3,980,908,652

¹ Excludes refundable portion.

² Includes interest on investments, profits of the Bank of Canada.

³ Includes other items not specified.
credited to the Old Age Security Fund.

⁴ Excludes 2 p.c. Old Age Security sales tax of \$24,297,979

11.—Per Capita Revenue and Expenditure, Years Ended Mar. 31, 1941-52

NOTE.—The years marked with an asterisk (*) are Census years; per capita figures are based on estimated populations (*see* p. 143) as at June 1 of the immediately preceding year in each case. *See* Tables 8 and 9 for the figures of revenue and expenditure on which this table is based. Figures for the years 1868-1912, inclusive, will be found at p. 849 of the 1938 Year Book; those for 1913-30 at p. 932 of the 1945 edition; and those for 1931-40 at p. 987 of the 1951 edition.

Year	Per Capita			Year	Per Capita		
	Revenue from Taxation	Total Revenue	Total Expenditure		Revenue from Taxation	Total Revenue	Total Expenditure
	\$	\$	\$		\$	\$	\$
1911*.....	68.37	76.63	109.80	1947.....	197.50	244.70	214.30
1942.....	118.27	129.36	163.82	1948.....	195.37	228.81	174.94
1943.....	177.34	193.02	376.45	1949.....	189.93	216.13	169.68
1944.....	206.60	234.42	451.23	1950.....	172.76	191.87	182.09
1945.....	180.36	224.96	439.11	1951*.....	203.13	226.99	211.68
1946.....	182.44	249.60	425.47	1952.....	261.10	284.17	266.46

12.—Per Capita Revenue and Expenditure, by Principal Items, Years Ended Mar. 31, 1949-52

NOTE.—See Tables 8 and 9 for revenue and expenditure on which these per capita figures are based, the basis of calculation being the estimated population as at June 1 of the immediately preceding year in each case.

Revenue	1949	1950	1951	1952
	\$	\$	\$	\$
Ordinary Revenue—				
Tax Revenue—				
Customs import duties.....	17.39	16.80	21.57	24.72
Excise duties.....	15.96	16.40	17.58	15.56
Income Tax.....	101.23	94.64	110.35	154.28
Excess Profits Tax.....	3.49	—0.13	0.74	0.17
Sales tax (net).....	29.42	30.00	33.55	40.94
Succession duties.....	1.99	2.23	2.45	2.73
Other taxes.....	20.50	12.82	16.89	22.70
Totals, Tax Revenue.....	189.98	172.76	203.13	261.10
Non-Tax Revenue—				
Post Office.....	6.29	6.28	6.60	7.47
Return on investments.....	8.42	6.81	6.53	8.40
Bullion and coinage.....	0.25	0.34	0.34	0.34
Other.....	1.65	1.86	3.55	3.92
Totals, Non-Tax Revenue.....	16.61	15.29	17.02	20.13
Totals, Ordinary Revenue.....	206.59	188.05	220.15	281.23
Special Receipts.....	9.35	3.81	6.72	2.93
Other Credits—				
Refunds on capital account.....	0.18	0.01	0.01	0.01
Credits to non-active accounts.....	0.01	—	0.11	—
Totals, Other Credits.....	0.19	0.01	0.12	0.01
Grand Totals, Revenue.....	216.13	191.87	226.98	284.17
Expenditure—				
Finance—				
Interest on public debt.....	36.27	32.71	31.01	37.11
Annual amortization of bond discounts and commissions.....	0.66	0.78	0.91	0.69
Cost of loan flotations.....	0.10	0.06	0.06	0.08
Totals, Public Debt Charges.....	37.06	33.53	32.02	37.91
Subsidies to provinces.....	1.33	1.42	1.37	1.44
Transitional grant to Newfoundland.....	...	0.43	0.47	0.46
Tax Rental Agreements.....	6.58	5.73	6.86	6.91
Section 7 of the Tax Rental Agreements Act.....	—	0.10	0.33	0.27
Totals, Department of Finance.....	54.68	55.42	54.88	62.36
Agriculture.....	4.82	5.58	10.41	4.79
Auditor General's Office.....	0.04	0.04	0.04	0.04
Chief Electoral Officer.....	0.02	0.33	0.02	0.03
Citizenship and Immigration.....	...	1.32	1.51	1.66
Civil Service Commission.....	0.11	0.11	0.12	0.12
Defence Production.....	...	...	...	2.21
External Affairs.....	1.13	1.24	1.61	2.68
Fisheries.....	0.42	0.56	0.65	0.62
Governor General and Lieutenant-Governors.....	0.02	0.02	0.02	0.02
Insurance.....	0.02	0.02	0.03	0.03
Justice, including Penitentiaries.....	0.77	0.82	0.91	1.00
Labour.....	4.71	4.18	4.57	4.59
Legislation.....	0.29	0.39	0.34	0.43
Mines and Resources.....	3.71	...	...	...
Mines and Technical Surveys.....	...	1.89	1.28	1.98
National Defence.....	20.96	28.62	57.06	101.04
National Health and Welfare.....	28.04	31.48	32.73	35.60
National Revenue.....	3.86	3.76	3.53	3.86

12.—Per Capita Revenue and Expenditure, by Principal Items, Years Ended Mar. 31, 1949-52—concluded

Expenditure	1949	1950	1951	1952
	\$	\$	\$	\$
Expenditure—concluded				
Post Office.....	6.06	6.15	6.69	6.99
Prime Minister's Office.....	0.01	0.01	0.01	0.29
Privy Council Office.....	0.34	0.30	0.30	
Public Archives.....	0.01	0.01	0.02	0.02
Public Printing and Stationery.....	0.06	0.06	0.05	0.08
Public Works.....	3.98	4.99	5.37	5.54
Reconstruction and Supply.....	0.37	...	...	...
Resources and Development.....	...	1.89	2.28	2.46
Royal Canadian Mounted Police.....	1.07	1.19	1.44	1.95
Secretary of State.....	0.12	0.12	0.15	0.17
Trade and Commerce.....	4.58	3.77	3.57	3.35
Transport.....	7.90	9.50	6.21	7.13
Veterans Affairs.....	21.59	18.32	15.78	15.42
Grand Totals, Expenditure.....	169.68	182.09	211.58	266.46

Subsection 3.—Analysis of Revenue from Taxation

Table 13 gives total expenditure that has been met by taxation and from all sources of revenue for each of the fiscal years ended Mar. 31, since 1946. During the war years expenditure far exceeded revenue but, in 1947, taxation met over 92 p.c. of expenditure, and revenue from all sources exceeded expenditure. For 1948 and 1949 revenue from taxation alone exceeded total expenditure by a substantial amount owing to the maintenance of high taxation levels and a greatly increased national income. In 1950, total expenditure was \$131,524,953 below total revenue, 95 p.c. of which was provided by taxation. In 1951 and 1952, 96 p.c. and 98 p.c. respectively, of total expenditure was met by taxation.

13.—Relationship of Total Expenditure to Taxation Revenue and to Total Revenue, Years Ended Mar. 31, 1946-52

NOTE.—Figures for the years 1940-45, inclusive, will be found at p. 989 of the 1951 Year Book.

Year	Total Expenditure	Taxation Revenue	Total Revenue	Percentages of Total Expenditure Provided from—	
				Taxation	All Revenue
	\$	\$	\$	p.c.	p.c.
1946.....	5,136,228,506	2,202,358,387	3,013,185,074	42.88	58.67
1947.....	2,634,227,412	2,427,661,313	3,007,876,313	92.16	114.18 ¹
1948.....	2,195,626,454	2,452,075,395	2,871,746,110	111.68 ¹	130.79 ¹
1949.....	2,175,892,334	2,436,142,276	2,771,395,075	111.96 ¹	127.37 ¹
1950.....	2,448,615,662	2,323,117,079	2,580,140,615	94.87	105.37 ¹
1951.....	2,901,241,698	2,785,349,899	3,112,535,948	96.01	107.28
1952.....	3,732,875,250	3,657,775,082	3,980,908,652	97.99	106.64

¹ See text above for explanation.

The revenue from customs and excise duties, the two most important sources prior to World War I amounted, in 1952, to 15 p.c. of the revenue derived from taxation while revenue from income tax formed 59 p.c. of the tax revenue.

The following analysis of taxation revenue is confined to excise duties, excise taxes, income tax revenue and succession duties; customs receipts constitute a single item in the *Public Accounts* and cannot be further analysed here.

Excise Duties and Taxes

Excise duties proper are presented below with a summary of the excise tariff and statistics arising as a by-product of administration such as, the quantities of grain and other products used in distillation and the quantities of excisable goods taken out of bond.

Canadian Excise Tariff.—The following is a statement of the Canadian excise tariff, as at Apr. 8, 1952:—

Spirits.....	per proof gal.	\$12-00	Canadian brandy.....	per proof gal.	10-00
Spirits used by licensed bonded manufacturers.....	per proof gal.	1-50	Malt, all, when brought into a brewery.....	per lb.	0-21
Spirits used in bond for manufacture of perfume.....	per proof gal.	Free	Malt Liquor or Beer, when brewed in whole or in part from any substance other than malt.....	per Imperial gal.	0-42
Spirits used in bond for manufacture approved chemical compositions.....	per proof gal.	0-15	Tobacco, manufactured, all descriptions except cigarettes	per lb.	0-35
Spirits sold to druggists licensed under the Excise Act to be used exclusively in preparation of prescriptions for medicines and pharmaceutical preparations.....	per proof gal.	1-50	Cigarettes, weighing not more than two and one-half pounds	per M	6-00
Spirits distilled from wine produced from native fruits, and used in any bonded manufactory for the treatment of domestic wine.....	per proof gal.	Free	Cigarettes, weighing more than two and one-half pounds.....	per M	11-00
Spirits imported and taken into a bonded manufactory (in addition to duties otherwise imposed).....	per proof gal.	0-30	Cigars, all.....	per M	1-00
Used directly in the manufacture of toilet preparations or cosmetics on which excise tax is applicable under Schedule I of The Excise Tax Act.....	per proof gal.	Free	Raw leaf tobacco, imported, now dutiable under the customs tariff only.		
			Canadian raw leaf tobacco, when sold for consumption..	per lb.	0-20

A drawback of 99 p.c. of the duty may be granted when domestic spirits, testing not less than 50 p.c. over proof, are delivered in limited quantities to universities, scientific or research laboratories, or to any bona fide public hospital, for medicinal purposes only.

Revenue from Excise Duties.—In the year ended Mar. 31, 1952, tobacco, including cigarettes, supplied about 45 p.c. of the revenue from excise duties.

14.—Gross Excise Duties collected, Years Ended Mar. 31, 1947-52

Item	1947	1948	1949	1950	1951	1952
	\$	\$	\$	\$	\$	\$
Spirits.....	45,060,831 ¹	39,391,092 ¹	40,634,697 ¹	46,547,587 ¹	60,126,300	45,944,724
Validation fee.....	947,710	770,880	825,371	790,587	1,108,252	1,223,933
Beer or malt liquor.....	2,511,311	3,819,875	3,740,065	3,678,316	2,745,851	3,812,065
Malt syrup.....	91,700	67,878	51,825	—	—	—
Malt.....	49,208,816	53,625,293	55,853,055	56,018,292	65,409,427	73,748,003
Tobacco (incl. cigarettes)...	100,867,668	101,900,638	106,033,181	115,778,732	114,282,662	100,547,951
Cigars.....	294,844	215,479	207,823	203,043	203,945	162,968
Licences.....	39,690	37,468	39,115	38,241	38,009	36,092
Totals¹.....	199,022,570¹	199,828,603¹	207,385,132¹	223,054,798¹	243,914,446	225,475,736

¹ These totals do not agree with net excise duties as shown in Table 8 owing to refunds and drawbacks and in the case of spirits, a transfer tax which is included here.

Statistics of Licences and Distillation.—Secondary to the collection of excise duties, statistics are compiled of excise licences issued and of distillation.

15.—Statistics of Licences and Distillation, Years Ended Mar. 31, 1947-52

Item	1947	1948	1949	1950	1951	1952
Licences issued.....No.	24	25	27	28	28	29
Licence fees.....\$	6,625	6,250	6,750	7,250	8,000	7,375
Grain, etc., Used for Distillation—						
Malt.....lb.	38,118,151	49,997,856	31,699,705	26,764,523	31,914,170	33,688,521
Indian corn.....“	91,807,930	248,056,463	176,368,186	162,568,138	209,060,163	211,851,336
Rye.....“	24,545,992	25,694,278	30,189,564	37,525,049	32,137,858	29,427,040
Wheat and other grain. “	133,173,559	34,616,203	15,462,635	2,887,990	13,174,382	17,925,256
Totals, Grain Used. lb.	287,645,632	358,364,800	253,720,090	229,745,700	286,286,573	292,892,153
Molasses used.....lb.	71,690,199	111,812,928	128,034,436	61,951,935	32,836,406	26,989,288
Wine and other materials “	4,305,252	5,467,095	8,733,086	5,237,900	8,496,194	8,330,301
Sulphide liquor.....gal.	74,126,650	95,063,070	98,080,000	89,712,658	86,454,960	99,344,940
Proof spirits manufactured.....proof gal.	21,571,074	28,198,327	23,643,036	20,741,268	23,551,259	24,742,386

The quantity of spirits manufactured has fluctuated greatly since 1920, varying from the low of 2,356,329 proof gal. in that year to the high of 35,555,059 proof gal. recorded in 1945.

Alcohol and Tobacco Taken Out of Bond.—For the amounts of spirits, malt liquor, malt and cigarettes taken out of bond for consumption in 1951 *see* Table 15, p. 884.

Excise Taxes

The statistics given in Table 16 represent gross excise tax collections by the Excise Division of the Department of National Revenue; these differ from the figures shown in Table 10 (in the column “Sales and Other Excise Taxes”), which represent net revenue received, by the amounts of the refunds shown in footnote 1 to Table 16.

16.—Excise Taxes collected, by Commodities and Provinces, Years Ended Mar. 31, 1947-52

(Accrued Revenue)

Commodity	1947	1948	1949	1950	1951	1952
	\$	\$	\$	\$	\$	\$
Commodity						
Domestic—						
Amusements.....	17,061,849	17,887,217	2,587,398	...	...	...
Automobiles, tires and tubes.....	12,147,218	26,203,014	32,976,441	32,988,931	59,791,585	89,111,798
Beverages.....	18,629,492	23,751,434	27,684,207	1,627,143	7,187,086	19,159,576
Candy and chewing gum..	12,793,120	17,138,611	19,543,584	1,030,143	9,914,041	10,845,824
Carbonic acid gas.....	296,050	352,073	332,677	...	150,827	377,207
Cigarette papers and tubes	6,508,877	6,124,539	6,706,224	6,887,029	7,369,511	382,121
Cigars, cigarettes and tobacco.....	76,137,520	68,450,719	77,529,716	82,574,363	84,203,237	104,806,864
Electrical and gas apparatus.....	6,918	2,164,381	3,619,983	...	1,607,101	3,731,560
Embossed cheques (departmental).....	370,072	372,698	409,974	359,617	391,377	433,667
Furs.....	2,732,627	2,860,355	3,570,044	2,773,723	4,165,195	4,221,849

For footnotes, *see* end of table, p. 1040.

**16.—Excise Taxes collected, by Commodities and Provinces, Years Ended
Mar. 31, 1947-52—concluded**

Commodity or Province	1947	1948	1949	1950	1951	1952
	\$	\$	\$	\$	\$	\$
Commodity—concluded						
Domestic—concluded						
Gasoline.....	35,013,531	2,193,131	...	...	...	...
Licences.....	91,227	90,139	90,006	84,004	85,831	81,663
Lighters.....	318,822	350,099	403,537	269,302	242,495	320,122
Matches.....	3,616,155	3,498,106	2,994,124	756,837	755,311	1,387,225
Other manufactures' tax...	15,759,737	14,855,135	16,739,711	6,911,787	9,235,677	22,779,222
Phonographs, radios and tubes.....	2,202,202	4,863,237	3,499,260	3,065,057	5,372,408	7,912,329
Playing cards.....	691,400	512,414	614,400	648,000	834,400	665,200
Sales, domestic.....	278,824,443	323,670,079	342,075,177	363,308,872	406,350,795	521,173,389
Stamps.....	15,901,819	15,514,256	13,605,236	9,014,763	10,553,385	10,912,768
Sugar.....	10,877,731	10,100,679	...	...	...	...
Toilet preparations.....	7,106,755	6,813,907	7,582,907	4,246,481	4,452,144	8,233,581
Transportation and transmission.....	27,930,562	27,530,884	29,034,392	3,967,088	...	...
Wines.....	2,393,718	2,341,585	2,059,639	2,125,606	2,224,885	2,167,267
Penalties and interest.....	222,078	286,070	291,819	286,054	286,513	381,055
Totals, Domestic.....	547,633,928	577,924,762	593,950,456	522,924,800	615,173,804	809,084,287
Imported.....	61,234,900	73,516,745	55,058,635	60,317,200	82,100,696	114,865,035
Grand Totals¹.....	608,868,828	651,441,507	649,009,091	583,242,000	697,274,500	923,949,323²
Province						
Newfoundland.....	...	...	...	2,928,142	3,071,105	4,222,529
Prince Edward Island.....	537,640	498,170	354,308	175,093	192,576	294,581
Nova Scotia.....	8,816,771	10,409,922	9,712,259	7,297,503	8,237,983	11,085,795
New Brunswick.....	7,815,592	8,721,379	6,092,221	4,765,769	5,410,375	7,020,959
Quebec.....	242,967,151	249,820,294	259,953,961	234,362,155	259,597,052	330,235,421
Ontario.....	279,023,635	306,183,730	311,081,866	285,628,445	364,336,263	493,684,889
Manitoba.....	21,403,741	22,214,291	20,255,931	15,186,782	16,957,296	23,477,085
Saskatchewan.....	6,806,167	6,952,275	5,207,665	3,712,245	4,068,319	5,780,443
Alberta.....	13,878,365	14,071,770	10,760,329	7,784,071	8,716,339	13,415,997
British Columbia.....	26,897,614	31,746,420	24,972,017	20,785,415	26,010,974	33,957,805
Yukon Territory.....	189,513	202,788	203,295	208,220	180,873	267,536
General for Canada—						
Departmental sales.....	488,296	616,845	409,974	359,620	391,376	433,668
Miscellaneous.....	1,925	3,060	2,334 ²	46,268	52,484	71,452
British post-office parcels.....	642	563	2,932	2,272	1,485	1,163
Departmental War Exchange Tax.....	41,776	...	...	...	...	...

¹ Includes refunds and drawbacks of \$29,845,228 in 1947; \$10,683,238 in 1948; \$12,871,403 in 1949; \$11,784,520 in 1950; \$10,506,408 in 1951; and \$13,723,039 in 1952.

² Includes 2 p.c. Old Age Security sales tax of \$24,297,979 credited to the Old Age Security Fund.

Income Tax*

The income tax was instituted in 1917 as a part of war-tax revenue. Before the outbreak of World War II, it had become a permanent and important part of the taxation structure and the chief source of raising ordinary revenue. In many respects, it is an ideal form of direct taxation and the experience and machinery for the collection of this tax has been built up over a long period of years.

Income tax rates were increased to help finance World War II, and a compulsory savings feature was adopted with respect to individuals and to corporations. A refundable portion of approximately \$295,000,000 was collected from individuals under the personal income tax, and approximately \$220,000,000 from individuals

* More detailed information is given in the annual report, *Taxation Statistics*, published by the Taxation Division, Department of National Revenue, Ottawa.

and corporations under the excess profits tax. Repayment of the refundable portion of personal income tax was completed in 1949 and the refundable portion of excess profits tax was repaid by March 1952.

Since the end of the War, the weight of individual income tax was reduced each year up to and including 1949 and higher exemption allowances were given. However, the expansion of personal incomes and the growth of the labour force offset to a considerable extent the effect of the reduction in rates. Following the outbreak of war in Korea in 1950, rising defence costs increased the rates of personal income tax. A defence surtax of 20 p.c. was introduced in 1951-52 but this applied at the rate of 10 p.c. to 1951 incomes. The Budget of 1952-53 announced a new schedule of rates that incorporated the greater part of the 20 p.c. defence surtax.

Taxes on corporation incomes were reduced following the end of World War II. Excess profits tax rates were also reduced and finally ceased to apply after Jan. 1, 1948. Concurrently with the ending of the excess profits tax, corporation income tax rates were raised from 18 p.c. to 30 p.c.

To help small businesses the tax rate on the first \$10,000 of profits was reduced to 10 p.c. in 1949 but, at the same time, the rate on profits in excess of \$10,000 was increased to 33 p.c. In 1950-51 it became necessary to increase sharply the rates of tax on corporation profits and, following the Budget of 1952-53, the rates became 20 p.c. on the first \$10,000 of profits, plus 50 p.c. on the excess over \$10,000, with a credit against the tax equal to 5 p.c. of the profits earned in provinces which continued to levy a corporation income tax.

Details of income tax changes in the Budgets of 1945-46, 1946-47, 1947-48 and 1948-49 are given at pp. 1008-1009 of the 1948-49 Year Book. Details of the tax changes in the 1949-50 Budget are given at p. 1002 of the 1950 Year Book. The change made in income tax rates in the 1950-51 Budget concerned corporation taxes only and is given at p. 979 of the 1951 Year Book. Changes made in the 1951-52 and 1952-53 Budgets are given at pp. 1029-1030.

The tax on dividends and interest and on rents and royalties is levied at the rate of 15 p.c. on payments going to non-residents of Canada. The payments subject to tax include income from an estate or trust, alimony payments, rents from real property, and rents, royalties or similar payments for the use in Canada of property, trade names or inventions. There is no non-resident tax on interest from Government of Canada bonds or bonds guaranteed by the Government of Canada or where the interest is payable in other than Canadian currency. Where the payments are for interest from bonds of, or guaranteed by, a province of Canada or are dividends paid by a wholly owned subsidiary to its parent company outside Canada the rate of tax is only 5 p.c.

The gift tax is imposed at the rate of 10 p.c. on gifts of up to \$5,000 and at rates varying from 11 p.c. to 28 p.c. on gifts from \$5,000 to \$1,000,000 or over.

Income tax revenue in Table 17 is as shown in the *Public Accounts* and represents collections made by the Taxation Division of the Department of National Revenue under the authority of the Income War Tax Act (R.S.C. 1927, c. 97) as amended and the Income Tax Act (11-12 Geo. VI, c. 52).*

* The Income Tax Act assented to June 30, 1948, superseded the Income War Tax Act.

17.—Collections under the Income Tax Act, Years Ended Mar. 31, 1946-52

(Tax and Applicable Section of the Act)

NOTE.—Figures for 1919-34 will be found at p. 966 of the 1947 Year Book and for the years 1935-45 at p. 993 of the 1951 edition.

Year	General Income Tax	Tax on Dividends and Interest (Sect. 9b)	Tax on Rents and Royalties (Sect. 27)	Gift Tax (Sect. 88)	Total
	Individual and Corporation (Sect. 9-1 and 9-2)				
	\$	\$	\$	\$	\$
1946.....	907,340,303	26,823,894	1,485,725	770,369	937,729,273 ^{1,2}
1947.....	888,808,484	28,428,143	1,708,003	1,538,888	963,458,245 ^{1,2}
1948.....	1,008,408,409	33,928,935	1,960,093	2,268,845	1,059,848,357 ⁴
1949.....	1,248,701,580	40,965,426	2,480,337	1,632,930	1,297,999,404 ⁵
1950.....	1,221,335,985	47,474,846		2,089,821	1,272,650,191 ⁶
1951.....	1,360,239,389	61,610,319		3,118,019	1,513,135,510 ⁷
1952.....	2,091,743,522 ⁸	55,017,014		..	2,161,373,408 ⁹

¹ Includes estimated refundable portion. ² Includes deferred tax, \$1,308,932. ³ Includes deferred tax, \$1,002,027 and tax on private companies, \$41,972,700. ⁴ Includes deferred tax, \$685,967 and tax on private companies, \$12,596,108. ⁵ Includes deferred tax, \$778,617 and tax on private companies, \$3,440,514. ⁶ Includes deferred tax \$629,029 and tax on private companies, \$1,120,510. ⁷ Includes deferred tax \$548,007 and tax on private companies \$87,619,776. ⁸ Excludes Old Age Security taxes. ⁹ Includes tax of \$14,612,872 on undistributed income of companies. Information concerning deferred tax and gift tax no longer available.

Collection by the Department of National Revenue on a Fiscal-Year Basis.—Collection statistics are gathered at the time the payments are made and, therefore, have the value of being very up-to-date. Their timeliness has been enhanced within the past few years by the adoption of the "pay-as-you-go" system which results in collecting most of the tax during the year in which the income is earned and, on the average, about ten months prior to the actual filing of an income-tax return by the taxpayer. The payments on behalf of most taxpayers, however, are made by their employers and a cheque from one employer may cover the tax payments of hundreds of employees. At this stage, therefore, it is not possible to link the moneys received to the individuals who are, in the final analysis, contributing the tax. Collection statistics, for this reason, are not capable of being closely related to the persons who are being taxed and any statistical tables that attempt to describe the taxpayer by occupation or income class must be based on the income-tax return which is filed by the taxpayer many months after the payment of his tax. However, collection statistics, if interpreted along with the tax rate, do serve the purpose of indicating the general trend of income upon which tax is levied well in advance of the assessment data.

The statistics given in Table 18 represent collections on the Federal Government's fiscal-year ended Mar. 31 basis, under the three Acts administered by the Taxation Division, Department of National Revenue.

18.—Taxes Collected by the Taxation Division of the Department of National Revenue, Years Ended Mar. 31, 1946-52

NOTE.—Figures for 1917-34 will be found in the 1947 Year Book, at pp. 999-1000 and for 1935-45 in the 1951 edition, p. 994.

Year Ended Mar. 31—	Income Tax			Excess Profits Tax	Succession Duties	Total Collections
	Individuals	Corporations	Total			
	\$	\$	\$	\$	\$	\$
1946.....	719,895,733 ¹	217,833,540	937,729,273 ¹	494,196,483 ¹	21,447,574	1,453,373,330 ¹
1947.....	724,666,292 ¹	238,791,953	963,458,245 ¹	448,697,443 ¹	23,576,071	1,435,731,759 ¹
1948.....	695,717,243	364,131,114	1,059,848,357	227,030,494	30,828,040	1,317,706,891
1949.....	806,009,280	491,990,124	1,297,999,404	44,791,918	25,549,777	1,368,341,099
1950.....	669,457,059	603,193,132	1,272,650,191	—1,788,387 ²	29,919,780	1,300,781,584
1951.....	713,938,999	799,196,511	1,513,135,510	10,140,910	33,599,089	1,556,875,509
1952.....	1,030,793,334	1,132,680,074	2,163,473,408 ³	2,364,909	38,207,985	2,204,046,302

¹ Includes refundable portion of taxes.

² Refunds arising out of renegotiation of war contracts

were in excess of collections.

³ Includes Old Age Security taxes.

Individual Income-Tax Statistics.—Individual income-tax statistics are presented herein on a calendar-year basis. These data are compiled from a 10 p.c. sample of all returns received.

19.—Taxpayers, Income and Tax, by Occupational Classes and Provinces, 1949-50

Class and Province	Tax-payers	Total Income Declared	Total Tax Declared	Class and Province	Tax-payers	Total Income Declared	Total Tax Declared
1949	No.	\$'000	\$'000	1950	No.	\$'000	\$'000
Primary producers.....	56,150	214,307	19,298	Primary producers.....	42,630	160,975	14,601
Professional.....	23,180	161,010	28,202	Professional.....	25,640	190,291	34,523
Employees.....	1,947,340	5,042,344	310,417	Employees.....	2,084,590	5,578,592	372,053
Salesmen.....	20,130	86,304	8,627	Salesmen.....	24,900	111,198	11,323
Business proprietors.....	131,000	647,554	87,160	Business proprietors.....	137,970	683,781	92,306
Financial.....	47,170	257,845	44,315	Financial.....	50,350	279,626	49,224
Estates.....	3,000	4,702	730	Estates.....	3,990	10,851	2,715
Deceased.....	3,450	15,566	2,128	Deceased.....	3,430	15,033	1,957
Unclassified.....	550	1,634	112	Unclassified.....	740	2,456	234
Totals, 1949.....	2,231,970	6,431,266	500,989	Totals, 1950.....	2,374,240	7,032,803	578,936
1949				1950			
Newfoundland.....	16,960	50,827	1,889	Newfoundland.....	18,590	57,762	4,449
P. E. Island.....	4,500	13,324	1,076	P. E. Island.....	5,180	13,993	855
Nova Scotia.....	62,710	170,502	10,985	Nova Scotia.....	68,990	194,118	12,905
New Brunswick.....	43,190	117,314	7,744	New Brunswick.....	46,330	129,684	8,738
Quebec.....	474,560	1,398,894	116,429	Quebec.....	504,570	1,526,833	127,107
Ontario.....	1,025,850	2,936,604	229,482	Ontario.....	1,092,520	3,246,039	271,313
Manitoba.....	122,020	339,942	24,664	Manitoba.....	128,950	362,420	31,695
Saskatchewan.....	90,700	266,181	20,151	Saskatchewan.....	85,540	247,202	18,524
Alberta.....	143,930	435,589	36,576	Alberta.....	150,550	450,789	36,853
British Columbia.....	245,680	696,758	51,584	British Columbia.....	260,660	769,035	62,632
Yukon Territory.....	1,870	5,331	409	Yukon Territory.....	2,540	7,785	599
				Non-residents.....	9,820	27,143	3,206
Totals, 1949.....	2,231,970	6,431,266	500,989	Totals, 1950.....	2,374,240	7,032,803	578,936

20.—Individual Income-Tax Statistics, 1949 and 1950

Income Class	Taxpayers		Total Income Declared		Total Tax Declared		Average Tax	
	1949	1950	1949	1950	1949	1950	1949	1950
	No.	No.	\$'000	\$'000	\$'000	\$'000	\$	\$
Under \$300.....	4,290	...	1,547	...	147	...	34	...
\$300 to \$900.....	593	...	495	...	33	...	56	...
\$900 to \$1,000.....	570	...	528	...	38	...	67	...
Under \$1,000.....	5,450	7,700	2,570	4,163	218	354	40	46
\$1,000 to \$1,100.....	64,440	57,340	67,750	60,689	490	503	8	9
\$1,100 to \$1,200.....	77,580	77,220	88,853	88,622	1,502	1,538	19	20
\$1,200 to \$1,300.....	83,010	79,890	103,303	99,869	2,733	2,607	33	33
\$1,300 to \$1,400.....	83,750	82,750	112,537	111,275	3,901	3,826	47	46
\$1,400 to \$1,500.....	79,880	78,530	115,355	113,688	4,781	4,678	60	60
\$1,500 to \$1,600.....	80,700	81,030	124,659	125,526	5,769	5,349	71	72
\$1,600 to \$1,700.....	73,960	74,150	121,726	122,020	6,293	6,476	85	87
\$1,700 to \$1,800.....	68,780	73,690	119,952	128,678	6,720	7,157	98	97
\$1,800 to \$1,900.....	67,710	71,130	124,841	131,283	7,470	7,743	110	109
\$1,900 to \$2,000.....	60,260	63,630	117,170	123,995	7,325	7,788	122	122
\$1,000 to, but not including \$2,000.....	740,070	739,360	1,096,146	1,105,645	46,984	48,165	63	65
\$2,000 to \$2,100.....	72,220	78,720	147,873	161,316	7,709	8,654	107	110
\$2,100 to \$2,200.....	78,070	80,540	167,567	172,932	7,960	8,499	102	105
\$2,200 to \$2,300.....	84,640	85,560	190,003	192,242	8,209	8,764	97	102
\$2,300 to \$2,400.....	92,560	89,880	217,063	211,216	8,668	8,884	94	99
\$2,400 to \$2,500.....	94,330	97,260	230,660	237,907	8,891	9,820	94	101
\$2,500 to \$2,600.....	96,680	99,230	245,976	253,056	9,293	10,055	96	101
\$2,600 to \$2,700.....	94,620	101,180	250,125	267,547	9,469	10,537	100	104
\$2,700 to \$2,800.....	87,670	94,060	240,516	258,224	9,287	10,700	106	114
\$2,800 to \$2,900.....	78,750	85,280	223,960	242,712	9,180	10,336	117	121
\$2,900 to \$3,000.....	69,420	78,190	204,398	230,195	8,767	10,255	126	131
\$2,000 to, but not including \$3,000.....	848,960	889,900	2,118,146	2,227,347	87,433	96,504	103	108
\$3,000 to \$3,500.....	243,220	288,490	782,522	928,102	38,590	47,650	159	165
\$3,500 to \$4,000.....	124,870	145,710	464,518	543,006	27,913	37,326	224	256
\$4,000 to \$4,500.....	72,590	82,870	306,610	349,964	21,473	24,738	296	298
\$4,500 to \$5,000.....	44,450	51,510	210,086	243,318	16,989	19,485	382	378
\$3,000 to, but not including, \$5,000.....	485,130	568,580	1,763,736	2,064,390	104,965	129,199	216	227
\$5,000 to \$6,000.....	49,110	54,940	266,366	298,143	24,851	31,090	506	566
\$6,000 to \$7,000.....	26,870	30,500	173,227	196,333	18,684	21,278	695	698
\$7,000 to \$8,000.....	17,420	13,190	129,683	135,935	15,629	16,361	897	899
\$8,000 to \$9,000.....	11,640	12,720	98,400	107,450	12,927	14,172	1,111	1,114
\$9,000 to \$10,000.....	8,530	9,070	80,854	86,096	11,626	12,308	1,363	1,357
\$5,000 to, but not including, \$10,000.....	113,570	125,420	748,530	823,957	83,717	95,209	737	759
\$10,000 to \$15,000.....	21,770	23,390	260,963	281,634	44,996	48,471	2,067	2,072
\$15,000 to \$20,000.....	7,810	9,110	131,822	161,696	30,734	36,586	3,935	3,888
\$20,000 to \$25,000.....	3,880	4,090	86,648	90,714	23,066	24,158	5,945	5,907
\$10,000 to, but not including, \$25,000.....	33,460	36,890	482,433	534,044	98,796	109,215	2,953	2,960
\$25,000 to \$50,000.....	4,210	5,050	138,600	169,390	45,070	55,317	10,630	10,954
\$50,000 or over.....	1,090	1,310	81,105	103,858	33,806	44,973	31,015	33,562
\$25,000 or over.....	5,330	6,390	219,705	273,257	78,876	100,290	14,798	15,695
Grand Totals.....	2,231,970	2,374,210	6,431,266	7,032,803	500,989	578,936	224	244

Corporation Income-Tax Statistics.—In the following tables, corporation statistics are presented on a taxation-year basis prior to assessment. The data have been extracted and compiled from the returns shortly after they have been filed and

are as declared by the taxpayer without the scrutiny or revision of the Department of National Revenue. Provincial figures contain an unavoidable bias in favour of Ontario and Quebec, caused by the fact that many large companies which operate across Canada file their returns in one or other of these two Provinces.

21.—Summary Statistics for Corporations Reporting a Profit, Taxation Year 1949¹

Item	Companies Reporting	Current Year Profit	Income Tax Declared
	No.	\$'000	\$'000
Active taxable companies—excluding co-operatives.....	26,091	1,857,365	570,186
Inactive companies.....	725	314	42
Co-operatives.....	1,754	6,903	1,744
Totals, Taxable Companies.....	28,570	1,864,582	571,972
Personal corporations.....	1,012	15,389	—
Other exempt companies ²	660	5,953	10
Grand Totals—Taxable and Exempt.....	30,242	1,885,924	571,982

¹ Excludes Newfoundland.

² Includes foreign business corporations paying \$100 filing fee which is recorded here as tax declared.

22.—Distribution of Active Taxable Companies Reporting a Profit, by Income Classes, Industrial Divisions and Provinces, Taxation Year 1949¹

Income Class, Industrial Division or Province	Companies Reporting	Current Year Profit	Income Tax Declared
	No.	\$'000	\$'000
Income Class			
Under \$1,000.....	3,727	1,619	204
\$ 1,000 to \$ 2,000.....	2,398	3,475	472
\$ 2,000 to \$ 3,000.....	1,799	4,400	635
\$ 3,000 to \$ 4,000.....	1,537	5,318	780
\$ 4,000 to \$ 5,000.....	1,261	5,640	816
\$ 5,000 to \$ 10,000.....	4,461	32,536	4,850
\$ 10,000 to \$ 15,000.....	2,333	28,398	5,133
\$ 15,000 to \$ 20,000.....	1,357	23,427	5,170
\$ 20,000 to \$ 25,000.....	961	21,527	5,258
\$ 25,000 to \$ 50,000.....	2,437	86,806	23,304
\$ 50,000 to \$ 100,000.....	1,533	108,250	31,393
\$ 100,000 to \$ 250,000.....	1,269	196,930	60,440
\$ 250,000 to \$ 500,000.....	479	166,948	52,232
\$ 500,000 to \$1,000,000.....	259	179,181	57,026
\$1,000,000 to \$5,000,000.....	236	465,853	150,645
Over \$5,000,000.....	44	527,057	171,828
Totals.....	26,091	1,857,365	570,186
Industrial Division			
Agriculture, fishing and forestry.....	463	10,467	2,813
Mining.....	444	130,478	41,550
Manufacturing.....	7,134	1,043,202	350,777
Construction.....	1,272	45,717	12,939
Public utilities.....	1,250	118,679	37,423
Wholesale trade.....	4,329	162,078	47,558
Retail trade.....	5,139	169,562	49,383
Service.....	2,760	47,223	12,698
Finance.....	3,295	129,924	35,036
Unclassified.....	5	35	9
Province			
Prince Edward Island.....	163	4,708	930
Nova Scotia.....	979	37,121	11,246
New Brunswick.....	661	22,381	6,642
Quebec.....	6,950	557,884	172,445
Ontario.....	9,243	891,991	275,759
Manitoba.....	1,611	83,679	25,470
Saskatchewan.....	773	17,441	4,868
Alberta.....	1,723	63,423	18,506
British Columbia.....	3,988	178,737	54,320

¹ Excludes Newfoundland.

Succession Duties

The first imposition of succession duties in Canada was in 1892, when Nova Scotia, New Brunswick, Quebec and Ontario enacted legislation of this nature. Legislation was passed in the other provinces in the following years: Manitoba, 1893; Prince Edward Island and British Columbia, 1894; Saskatchewan and Alberta, 1905. The Federal Government first imposed succession duties in 1941.

Table 23 shows the receipts of the various Governments from this source from 1947.

In 1947, seven provinces—Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia—withdraw from the succession duty field. This action was consequent upon the acceptance of an offer made on June 27, by the Federal Minister of Finance in the 1946 Budget Speech, to “rent” from the provinces certain tax fields for a five-year period in return for compensation. By the terms of this offer a province had the option of “renting” its succession duty field to the Federal Government or of continuing to cultivate it and having its compensation appropriately reduced. To keep the succession duty burden approximately equal in all provinces a complementary measure was implemented by the Government whereby, the rates of federal succession duty were doubled and a credit of up to one-half the federal duty was allowed against it for succession duty paid to a province.

The seven provinces mentioned above entered into tax-rental agreements and also elected to “rent out” the succession duty field for the period Apr. 1, 1947 to Mar. 31, 1952. Accordingly, in these provinces, the previous combination of federal and provincial succession duties was replaced by a single federal succession duty at double the previous federal level which, in most cases, resulted in a combined duty approximately the same as previously levied under the separate federal and provincial duties. On the other hand, the Provinces of Quebec and Ontario did not enter into the agreements but the doubled rates of federal duty were applied and were capable of being reduced up to one-half by a credit for the duty paid to the Province.

The Yukon Territory in 1948, and the Province of Newfoundland in 1949, entered into a similar tax-rental agreement and elected to rent out succession duty fields for the periods Apr. 1, 1948 to Mar. 31, 1952, and Apr. 1, 1949 to Mar. 31, 1952, respectively.

In 1952, the tax rental agreements expired but new five-year agreements were negotiated with the same eight provinces which again elected not to cultivate their succession duty fields. The Province of Ontario also entered into an agreement but elected to continue to cultivate the succession duty field. Consequently, in all the provinces of Canada the situation in regard to succession duty is likely to be the same as that described above until Mar. 31, 1957.

The Dominion Succession Duty Act was enacted as 4-5 Geo. VI, c. 14. Certain amendments were made to the Act by 5-6 Geo. VI, c. 25; 7-8 Geo. VI, c. 37; 8-9 Geo. VI, c. 18; and the doubling of rates and provision of the tax credit mentioned

above by 10 Geo. VI, c. 46. Two important amendments were made to the Act in 1948. The former provision by which bequests to non-profit charitable organizations in Canada were exempt only up to 50 p.c. of the aggregate net value of the estate was changed to remove this limit entirely. A second change exempted from duty all successions derived from an estate of an aggregate net value not exceeding \$50,000; formerly this exemption had applied only up to an aggregate net value of \$5,000. While estates in excess of \$50,000 remain dutiable in full, it was provided at the same time that in no case would the duty reduce the value of the estate below \$50,000. In 1952, several amendments of a technical nature were made in order to clarify certain positions and remove anomalies.

A common feature of both federal and provincial duties is the variation of rates by the degree of relationship of the beneficiary to the deceased. The four classes of beneficiaries established under federal law (*see* p. 1048) have, for example, specific rates that change with each classification, while in Ontario there are three classes of beneficiaries with different rates of duty attached to each class. A common feature of both federal and provincial Acts is an initial rate of duty to be charged, based on the total value of the estate, and an additional rate based on the bequest received by each individual. Thus, in the case of the Federal Government, a person who receives a bequest of \$50,000, out of an estate of \$500,000 is charged the rate for a \$500,000 estate plus an additional rate for \$50,000, and the total rate is then applied in calculating the tax on his bequest.

Double taxation of estates resulting from taxation of the same property by more than one province has been common in the past, but the withdrawal of eight of the provinces from the field and the credit provision mentioned above have reduced this problem considerably. In the international field, dual taxation has been dealt with by way of tax conventions. A tax convention between Canada and the United States was signed on June 8, 1944. One of the terms of this convention is that shares in a corporation organized in or under the laws of the United States or any of the individual States shall be deemed to be property situated within the United States, and shares in a corporation organized in or under the laws of Canada, or of the provinces or territories of Canada, shall be deemed to be property situated within Canada.

An agreement respecting succession duties was signed June 5, 1946, between Canada and the United Kingdom.

In these circumstances, the difficulties of working out succession duty tables so as to show the combined effects of federal and provincial duties is easily realized. The best that can be done here is to choose typical estates in the main classes laid down in the legislation and give examples of the combined duties applicable in such cases. This has been attempted in the following series of tables in the hope that it will be useful in presenting to the student of this subject a general knowledge of the incidence of succession duties in Canada under conditions existing at present.

23.—Federal and Provincial Net Revenue from Succession Duties, Fiscal Years Ended Mar. 31, 1947-52

NOTE.—The fiscal year of Nova Scotia ended Nov. 30, and that of New Brunswick Oct. 31, up to and including 1949.

Province	1947	1948	1949	1950	1951	1952
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Federal.....	23,576	30,828	25,550	29,920	33,599	38,208
Provincial— ¹						
Newfoundland.....	...	...	...	² 6	² 3	² 12 ^p
Prince Edward Island.....	92	63	21	6	3	12 ^p
Nova Scotia.....	661 ³	513 ³	208 ³	73 ³	26 ⁴	22 ^p
New Brunswick.....	1,072 ⁵	432 ⁵	53 ⁵	46 ⁵	6 ⁵	1 ^p
Quebec.....	11,473	9,283	11,991	13,325	13,007	12,428 ^p
Ontario.....	15,227	17,945	15,995	14,978	17,828	19,500 ^p
Manitoba.....	809 ⁷	403	92	32	28	10 ^p
Saskatchewan.....	667 ⁷	509	121	23	127	...
Alberta.....	855	652	149	98	101	26
British Columbia.....	3,211	1,254	495	257	95	75 ^p

¹ Under terms of the 1947 and 1952 Dominion-Provincial Taxation Agreements all provinces, except Ontario and Quebec, refrain from levying succession duties, hence amounts shown after 1947 for the rest of the provinces are arrears. ² Excludes arrears of pre-union death duties. ³ Fiscal year ended

Nov. 30 of preceding calendar year.

⁴ Sixteen months.

⁵ Fiscal year ended Oct. 31 of preceding calendar year.

⁶ Seventeen months.

⁷ Eleven months.

Federal Duty.—Beneficiaries are divided into four classes, as follows:—

- (1) Widow or dependent child or dependent grandchild.
- (2) Husband; parent; grandparent; child over 18 years of age, not infirm; son- or daughter-in-law.
- (3) Lineal ancestor other than parent or grandparent; brother, sister or their descendant; uncle or aunt or their descendant.
- (4) Others.

No duty is payable on estates not exceeding \$50,000, or on bequests of up to \$1,000 to any one individual, nor is duty levied on gifts to the Federal Government or provinces, on residential property of certain diplomatic or consular officials, on pensions administered by the Canadian Pensions Commission or those payable by Allied Nations for war services, nor on insurance moneys or annuities if the person with whom the contract was made was domiciled outside Canada at the time of death. Provision is made for increased exemptions and reduced duties in the case of those dying as a result of war service. Bequests to non-profit charitable organizations in Canada are exempt.

Widows are exempt up to \$20,000, dependent children to \$5,000 each and, in cases where dependent children do not benefit, the widow's exemption is increased by \$5,000 for each child who does not benefit. In the case of dependent orphaned children, there is a further exemption of \$15,000 (in addition to \$5,000) divisible proportionately among such orphans according to their number and the value of each individual benefit. Duty is payable on the excess only when the limit is passed, i.e., these exemptions are deductible exemptions.

Gifts made during the lifetime of the deceased are exempt if the transfer was carried out more than three years prior to his death and the recipient of such gifts secured full possession at the time of the transfer and the donor (the deceased), thereafter, did not retain any rights therein or secure any benefits therefrom.

If gift tax payable under the provisions of the Income Tax Act has been paid in connection with the transfer made by a deceased person during his lifetime then no succession duty is payable in respect of such gift except to the extent that succession duty thereon is in excess of the gift tax.

Examples of the rates of duty and duty levied are given in Table 24.

24.—The Incidence of Succession Duties in all Provinces (except Quebec and Ontario) on Typical Estates

Class	Aggregate Net Value	Dutiable Value	Rate	Duty
	\$	\$	p.c.	\$
A. Widow only.....	60,000	40,000	10·6	4,240
	100,000	80,000	14·7	11,760
	300,000	280,000	26·7	74,760
	500,000	480,000	32·7	156,960
	1,000,000	980,000	38·7	379,260
B. Only child over 18 years.....	60,000	60,000	11·9	7,140
	100,000	100,000	16·7	16,700
	300,000	300,000	28·7	86,100
	500,000	500,000	34·7	173,500
	1,000,000	1,000,000	40·7	407,000
C. Brother or sister.....	60,000	60,000	13·9	8,340
	100,000	100,000	18·7	18,700
	300,000	300,000	30·7	92,100
	500,000	500,000	36·7	183,500
	1,000,000	1,000,000	42·7	427,000
D. Stranger.....	60,000	60,000	15·9	9,540
	100,000	100,000	20·7	20,700
	300,000	300,000	32·7	98,100
	500,000	500,000	38·7	193,500
	1,000,000	1,000,000	44·7	447,000

The Incidence of Combined Federal and Provincial Succession Duties.—

As described at pp. 1046-47, only the Provinces of Quebec and Ontario have retained their own succession duties. As already mentioned, seven provinces elected to "rent" their succession duties for the periods from Apr. 1, 1947, to Mar. 31, 1952, and from Apr. 1, 1952 to Mar. 31, 1957, and one (Newfoundland) for the periods Apr. 1, 1949, to Mar. 31, 1952, and from Apr. 1, 1952 to Mar. 31, 1957. As a consequence, the tables showing combined rates of federal and provincial duty for each province, which appeared at pp. 942-950 of the 1946 Year Book, have been deleted with the exception of those for the two above-mentioned provinces. The new condition of

doubled federal duties and a tax credit of up to 50 p.c. for the provincial duty has been taken into account in Tables 25 and 26. The rates under the heading "Dominion Duty" shown in the 1946 Year Book have been doubled and under "Combined Duty" the greater of (1) the amount of the federal duty (doubled rates), or (2) the provincial duty plus one-half the federal duty, is given.

In these two tables, the beneficiaries under all the classes show the duties collectable where the estate of given value is left to one beneficiary only, since it would be impossible to cover the many different classifications, exemptions and saving clauses to be found in the legislation of the respective provinces. In every case, the estate is assumed to be wholly situated within the province and the beneficiary domiciled therein to be the sole heir. The reader is referred to the legislation and to the taxing authority shown under each provincial heading for more complete information.

Quebec.—The current legislation under which succession duties are collected is R.S.Q. 1941, c. 80, as revised by 7 Geo. VI, c. 18. As stated at p. 1047, the following text and table can give only a broad outline of such duties as applied to comparable classes of beneficiaries in other provinces. Full details regarding other cases may be obtained from the Act or from the Collector of Succession Duties, Provincial Revenue Offices, Quebec, Que.

Under the legislation, beneficiaries are divided into three classes, as follows:—

- (1) Those in direct ascending or descending line between consort, between father- or mother-in-law and son- or daughter-in-law, between step-father or step-mother and step-son or step-daughter. There is no limitation of degree in the direct ascending or descending line between these relationships.
- (2) Those in collateral line including a brother or sister, or descendant of a brother or sister of the deceased, or to a brother or sister, or son or daughter of a brother or sister, of the father or mother of the deceased.
- (3) Others.

No duty is payable when the aggregate value of the property passing to persons in Class (1) does not exceed \$10,000. In an estate, the aggregate value of which does not exceed \$50,000, this sum is increased by \$1,500 for each child, in the first degree, under 25 years of age, domiciled in the Province, left by and surviving the deceased (15-16 Geo. VI, c. 14). No duty is payable on bequests of up to \$1,000 to beneficiaries in Class (3) who have been in the employ of the testator for five years or more. In estates that devolved prior to Feb. 22, 1949, no duty is payable on legacies for religious, charitable or educational purposes in Quebec and the same privilege is extended to legacies for similar work outside that Province, provided that the province or State within which the work is to be carried out extends reciprocal privileges under its succession duty laws. Since February 1949, all legacies, gifts and subscriptions for religious, charitable and educational purposes are tax-free, regardless of the country, province or State where the institutions benefiting therefrom are located.

25.—The Incidence of Federal and Quebec Succession Duties on Typical Estates

Class	Aggregate Net Value	Federal Duty ¹			Provincial Duty			Combined Duties ¹
		Dutiable Value	Rate	Duty	Dutiable Value	Rate	Duty	
	\$	\$	p.c.	\$	\$	p.c.	\$	\$
A. Widow only.....	20,000	—	—	—	20,000	2.80	560	560
	25,000	—	—	—	25,000	3.00	750	750
	50,000	—	—	—	50,000	4.00	2,000	2,000
	60,000	40,000	10.60	4,240	60,000	5.60	3,360	7,140
	100,000	80,000	14.70	11,760	100,000	8.00	8,000	13,880
	300,000	280,000	26.70	74,760	300,000	12.00	36,000	74,760
	500,000	480,000	32.70	156,960	500,000	15.50	77,500	156,960
	1,000,000	980,000	38.70	379,260	1,000,000	23.00	230,000	419,630
B. Only child over 18 years.....	20,000	—	—	—	20,000	2.80	560	560
	25,000	—	—	—	25,000	3.00	750	750
	50,000	—	—	—	50,000	4.00	2,000	2,000
	60,000	60,000	11.90	7,140	60,000	5.60	3,360	7,140
	100,000	100,000	16.70	16,700	100,000	8.00	8,000	16,700
	300,000	300,000	28.70	86,100	300,000	12.00	36,000	86,100
	500,000	500,000	34.70	173,500	500,000	15.50	77,500	173,500
	1,000,000	1,000,000	40.70	407,000	1,000,000	23.00	230,000	433,500
C. Brother or sister...	20,000	—	—	—	20,000	7.80	1,560	1,560
	25,000	—	—	—	25,000	8.50	2,125	2,125
	50,000	—	—	—	50,000	12.00	6,000	6,000
	60,000	60,000	13.90	8,340	60,000	13.40	8,040	12,210
	100,000	100,000	18.70	18,700	100,000	16.00	16,000	25,350
	300,000	300,000	30.70	92,100	300,000	19.00	57,000	103,050
	500,000	500,000	36.70	183,500	500,000	21.67	108,350	200,100
	1,000,000	1,000,000	42.70	427,000	1,000,000	28.33	283,300	496,800
D. Stranger.....	20,000	—	—	—	20,000	14.00	2,800	2,800
	25,000	—	—	—	25,000	14.50	3,625	3,625
	50,000	—	—	—	50,000	17.00	8,500	8,500
	60,000	60,000	15.90	9,540	60,000	18.00	10,800	15,570
	100,000	100,000	20.70	20,700	100,000	22.00	22,000	32,350
	300,000	300,000	32.70	98,100	300,000	25.75	77,250	126,300
	500,000	500,000	38.70	193,500	500,000	28.25	142,250	239,000
	1,000,000	1,000,000	44.70	447,000	1,000,000	34.50	345,000	568,500

¹ The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer up to one-half of this amount on account of duty paid to the provinces, see p. 1046.

Ontario.—The current legislation on succession duties is R.S.O. 1950, c. 378, as amended. Full information may be obtained on application to the Succession Duty Office, Treasury Department, Parliament Buildings, Toronto, Ont.

Beneficiaries are divided into three classes, as follows:—

- (1) Widow; child; husband; parent; grandparent; grandchild; son- or daughter-in-law.
- (2) Brother; sister; nephew; niece; uncle; aunt; cousin; child of nephew or niece.
- (3) Others.

No duty is payable on estates not exceeding \$5,000 in aggregate value, nor on estates not exceeding \$50,000 devised to persons in Class (1), nor on those not exceeding \$10,000 devised to persons in Class (2).

Where any person in Class (3) was in the employ of the deceased for at least five years immediately prior to his death, no duty is payable with respect to any benefits which such person derived from the deceased where the total value of such benefits is not in excess of \$1,000. Such benefits, while exempt are, nevertheless, taken as a factor in fixing the rates applicable to the dutiable portions of the estate.

Requests for religious or educational purposes to any religious or educational organization which carries on its work solely in Canada, and requests for charitable purposes to any charitable organization which carries on its work solely in Ontario, are exempt from duty and are ignored altogether in the computation of duty on the portions of the estate that are not exempt. The same rule applies to requests to the Canadian National Institute for the Blind, the Canadian Red Cross Society and other approved patriotic organizations.

26.—The Incidence of Federal and Ontario Succession Duties on Typical Estates

Class	Aggregate Net Value	Federal Duty ¹			Provincial Duty			Combined Duties ^{1,2}
		Dutiable Value	Rate	Duty	Dutiable Value	Rate	Duty	
	\$	\$	p.c.	\$	\$	p.c.	\$	\$
A. Widow only.....	20,000	—	—	—	—	—	—	—
	25,000	—	—	—	—	—	—	—
	50,000	—	—	—	—	—	—	—
	60,000	40,000	10.60	4,240	60,000	4.60	3,174 ³	5,294
	100,000	80,000	14.70	11,760	100,000	7.50	8,625 ³	14,505
	300,000	280,000	26.70	74,760	300,000	10.00	34,500 ³	74,760
	500,000	480,000	32.70	156,960	500,000	12.50	71,875 ³	156,960
	1,000,000	980,000	38.70	379,260	1,000,000	18.00	207,000 ³	396,630
B. Only child over 18 years.....	20,000	—	—	—	—	—	—	—
	25,000	—	—	—	—	—	—	—
	50,000	—	—	—	50,000	2.50	1,438 ³	1,438
	60,000	60,000	11.90	7,140	60,000	4.60	3,174 ³	7,140
	100,000	100,000	16.70	16,700	100,000	7.50	8,625 ³	16,975
	300,000	300,000	28.70	86,100	300,000	10.00	34,500 ³	86,100
	500,000	500,000	34.70	173,500	500,000	12.50	71,875 ³	173,500
	1,000,000	1,000,000	40.70	407,000	1,000,000	18.00	207,000 ³	410,500
C. Brother or sister...	20,000	—	—	—	20,000	8.60	2,064 ⁴	2,064
	25,000	—	—	—	25,000	9.15	2,744 ⁴	2,744
	50,000	—	—	—	50,000	11.90	7,140 ⁴	7,140
	60,000	60,000	13.90	8,340	60,000	13.00	9,360 ⁴	13,530
	100,000	100,000	18.70	18,700	100,000	15.20	18,240 ⁴	27,590
	300,000	300,000	30.70	92,100	300,000	18.00	54,000 ⁴	110,850
	500,000	500,000	36.70	183,500	500,000	20.50	123,000 ⁴	214,750
	1,000,000	1,000,000	42.70	427,000	1,000,000	26.00	312,000 ⁴	525,500
D. Stranger.....	20,000	—	—	—	20,000	13.10	3,275 ⁵	3,275
	25,000	—	—	—	25,000	13.40	4,187 ⁵	4,187
	50,000	—	—	—	50,000	15.00	9,375 ⁵	9,375
	60,000	60,000	15.90	9,540	60,000	15.50	11,625 ⁵	16,395
	100,000	100,000	20.70	20,700	100,000	17.50	21,875 ⁵	32,225
	300,000	300,000	32.70	98,100	300,000	22.50	84,375 ⁵	133,425
	500,000	500,000	38.70	193,500	500,000	27.50	171,875 ⁵	268,625
	1,000,000	1,000,000	44.70	447,000	1,000,000	35.00	437,500 ⁵	661,000

¹ The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer up to one-half of this amount on account of duty paid to the provinces, *see* p. 1046. ² Includes surtax on provincial duty. ³ Includes a surtax of 15 p.c. ⁴ Includes a surtax of 20 p.c. ⁵ Includes a surtax of 25 p.c.

Subsection 4.—Subsidies and Taxation Agreements with the Provinces

Subsidies.—By the provisions of the British North America Act and subsequent arrangements entered into from time to time, the Federal Government makes certain annual payments to the provinces: these are summarized as follows:—

Interest on Debt Allowances.—By the terms of the union of the provinces at Confederation in 1867, the Federal Government assumed all the outstanding debts and liabilities of the provinces and undertook to pay, except in the case of Ontario and Quebec, interest at 5 p.c. per annum on the amounts by which the actual per capita indebtedness of the provinces fell short of a basic debt allowance calculated at approximately \$25 per capita. On the subsequent entry of additional provinces

into Confederation, similar arrangements were effected regarding the assumption of their pre-Confederation indebtedness. From time to time, adjustments have been made in the basis of calculating the debt allowances of provinces; moreover, the Federal Government pays interest at 5 p.c. per annum on the amounts by which the actual debts of the provinces, on their entry into Confederation, fell short of the allowed debts as adjusted. The aggregate annual payment by the Federal Government to the provinces in respect of interest on debt allowances is \$1,609,386.

Allowances for Governments and Legislatures.—Under the terms of the union, annual specific grants were made to the various provinces toward the support of their governments and legislatures. These amounts vary with the population of the provinces, according to the following scale approved in 1907:—

Where population is—	\$
Under 150,000.....	100,000
150,000, but does not exceed 200,000.....	150,000
200,000, " " 400,000.....	180,000
400,000, " " 800,000.....	190,000
800,000, " " 1,500,000.....	220,000
Over 1,500,000.....	240,000

Aggregate annual allowances presently paid under this head amount to \$1,990,000, including the \$180,000 which became payable to Newfoundland upon union with Canada in 1949.

Allowances per Capita of Population.—Under the British North America Act of 1867, a grant of 80 cents per capita of population was allowed to each province. The British North America Act of 1907 provided that the grant would be paid to each province at the rate of 80 cents per capita up to a population of 2,500,000, and at the rate of 60 cents per capita for so much of the population as exceeded that number. These allowances were last adjusted in 1951 following the Census. The allowances paid to the provinces in the year ended Mar. 31, 1952, amounted to \$10,580,361.

The Act to approve the terms of union of Newfoundland with Canada in 1949 provided for an annual subsidy equal to 80 cents per capita of the population of the Province (being taken at 325,000 until the first decennial Census after the date of union), subject to increase to conform with the scale of grants authorized by the British North America Act, 1907.

Special Grants.—In the case of certain of the provinces, grants have been added to the original scale of subsidies in view of special circumstances obtaining which, for the year ended Mar. 31, 1952, amounted, in the aggregate, to \$2,468,380 as follows:—

Prince Edward Island.—A special grant of \$195,000 less a deduction of \$39,120 (net grant of \$155,880).

New Brunswick.—An annual grant of \$150,000 since 1875 in consideration of the repeal of lumber duties reserved to the Province by the B.N.A. Act of 1867.

Manitoba.—A special grant on the basis of population amounting at present to \$562,500 per annum.

Saskatchewan and Alberta.—An annual sum as compensation for loss of public lands revenue, based on their respective populations and amounting at present to \$750,000 for Saskatchewan and \$750,000 for Alberta.

British Columbia.—A special grant amounting at present to \$100,000 per annum.

27.—Subsidy Allowances to Provincial Governments, Years Ended Mar. 31, 1946-52

Province	1946	1947	1948	1949	1950	1951	1952
	\$	\$	\$	\$	\$	\$	\$
Newfoundland.....	---	---	---	---	1,925,000	1,540,000	1,569,133
Prince Edward Island.....	381,932	381,932	656,932	656,932	656,932	656,932	656,932
Nova Scotia.....	705,140	705,140	2,005,140	2,005,140	2,005,140	2,005,140	2,056,838
New Brunswick.....	732,386	732,386	1,632,386	1,632,386	1,632,386	1,632,386	1,679,023
Quebec.....	2,866,590	2,866,590	2,866,590	2,866,590	2,866,590	2,866,590	3,300,869
Ontario.....	3,155,007	3,155,007	3,155,007	3,155,007	3,155,007	3,155,007	3,640,940
Manitoba.....	1,717,284	1,709,043	1,722,202	1,715,623	1,767,315	1,750,084	1,755,317
Saskatchewan.....	2,049,775	2,034,650	10,079,651 ¹	2,041,525	2,071,900	2,061,775	2,040,757
Alberta.....	1,835,075	1,794,561	10,272,767 ¹	2,018,039	2,086,043	2,063,375	2,126,976
British Columbia.....	1,003,440	1,003,440	1,003,440	1,003,440	1,003,440	1,003,440	1,281,319
Totals.....	14,446,629	14,382,749	33,394,115	17,094,682	19,169,753	18,734,729	20,108,104

¹ Includes a payment of \$8,031,250 to each of the Provinces of Saskatchewan and Alberta under authority of the Western Provinces Treasury Bills and Natural Resources Settlement Act.

28.—Subsidy Allowances to Provincial Governments, July 1, 1867 to Mar. 31, 1952¹

Province	Allowances for Government	Allowances on Basis of Population	Special Grants ²	Interest on Debt Allowances	Total ²
	\$	\$	\$	\$	\$
Newfoundland.....	585,000	874,133	3,575,000	—	5,034,133
Prince Edward Island.....	5,520,000	6,796,165	8,845,142	3,262,268	24,423,575
Nova Scotia.....	10,950,000	31,321,710	7,326,980	4,132,583	53,731,273
New Brunswick.....	10,310,000	24,135,868	16,980,000	1,874,004	53,299,872
Quebec.....	13,600,000	125,928,104	—	7,491,084	147,019,188
Ontario.....	14,000,000	150,976,512	—	7,449,565	172,426,077
Manitoba.....	10,155,000	27,316,384	30,019,233	20,219,135	87,709,752
Saskatchewan.....	9,456,667	28,121,342	38,562,500	19,052,625	95,193,134
Alberta.....	8,831,667	23,581,005	34,375,000	19,652,625	85,840,297
British Columbia.....	9,880,000	23,540,296	9,100,000	2,371,020	44,891,316
Totals.....	93,288,334	442,591,519	148,783,855	84,904,969	769,568,617

¹ This statement does not include any special grants voted and paid to the Maritime Provinces, Manitoba, Saskatchewan and British Columbia; it also excludes payments to Provinces under the Dominion-Provincial Taxation Agreements and payments of the transitional grant to the Province of Newfoundland.

² Includes payments under the provisions of the Maritime Additional Subsidies Act and additional annual subsidy under terms of union with Newfoundland.

³ See text at p. 1053.

Additional Special Grants.—Additional special grants were voted annually to the Maritime Provinces, Manitoba, Saskatchewan and British Columbia until 1941.

These additional special grants were suspended with the coming into force of the Wartime Tax Agreements, 1942. The grants were paid in 1947 and later years to the three Maritime Provinces under the provisions of the Maritime Additional Subsidies Act, 1942. The terms of union with Newfoundland, 1949, provide for an additional annual subsidy of \$1,100,000 in recognition of the special problems of that province by reason of geography and its sparse and scattered population.

Tax Rental Agreements.—*The Tax Rental Agreements, 1947.*—The Wartime Tax Agreements 1942 (see Year Book 1946, pp. 900-901) lapsed in the period from Oct. 30, 1946, to Mar. 31, 1947, and were succeeded by the Tax Rental Agreements, 1947. These, in turn, were succeeded by the Tax Rental Agreements, 1952. By the 1947 and 1952 Agreements, a province agrees to refrain from levying certain direct taxes, for a period of five years, in return for compensation from the

Federal Government. The main purposes of these Agreements are to establish a more equitable system of taxation throughout Canada by reducing duplication of direct taxation and duplication of machinery for the collection of direct taxes, to give a greater measure of stability to the revenue of the Provinces and to enable the Federal Government, together with the Provincial Governments, to carry out national policies intended to maintain high levels of employment and production.

The 1947 Tax Rental Agreements were entered into by the Federal Government pursuant to the Dominion-Provincial Tax Rental Agreements Act, 1947. Seven Provinces—Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia—entered into these Agreements for the full five year period, the Yukon Territory for four years, and the new Province of Newfoundland for three years. The Agreements contained the basic provisions of the Wartime Tax Agreements whereby the provinces and their municipalities withdrew their income taxes, corporation income taxes and special taxes on corporations for the war period, in return for compensation from the Federal Government. The Agreements contained significant changes and additions which had been worked out at the meetings of the Dominion-Provincial Conference on Reconstruction in 1945 and 1946, and in the negotiations which followed the June 1946 Budget offer of the Federal Minister of Finance. The main features of this offer, which were embodied in the Agreements, are outlined in the Year Book 1946, pp. 883-884.

Under the 1947 Agreements, a province and its municipalities were required to refrain from levying personal income taxes, corporation income taxes and special taxes on corporations for the period Jan. 1, 1947, to Dec. 31, 1951. (Shorter periods were required of the Yukon Territory and Newfoundland.) However, a province was encouraged to levy a corporation income tax of 5 p.c. in order to keep the level of income taxes on corporations in all provinces—whether or not they had entered into Agreements—approximately uniform, and such a tax was levied by all the provinces and the Yukon Territory. The tax was imposed on the income of a corporation attributable to its operations in the province, and the Agreements provided a set of rules according to which an appropriate allocation could be made of a corporation's income to the province. As provided in the Agreements, the tax was imposed under the same general provisions as those of the Income War Tax Act and The Income Tax Act, and was administered by the Federal Government without cost to the provinces. The revenue from the tax was paid over to each province but a corresponding reduction was made in the amount of compensation otherwise payable under the Agreements.

The 1947 Agreements were concerned also with another tax field—that of succession duties; for details *see* pp. 1046-1047.

The Agreements expressly permitted the imposition by a province of royalties and rentals on natural resources when such royalties and rentals were of a nature conforming with the definitions set forth in the Agreements. Provincial taxation of income derived from logging and mining operations, as defined in the Agreements,

was also permitted. Furthermore, the Federal Government was obligated by the Agreements to allow such royalties, rentals and taxes to be deducted in the computation of income for federal income tax purposes for the term of the Agreements.

The basis of compensation in the 1947 Agreements differed considerably from that of the Wartime Tax Agreements, 1942, and also from that in the 1946 Budget offer. The provinces were given a choice of two alternative bases. The components of the first option were \$12.75 per capita of provincial population in 1942, plus 50 p.c. of the province's 1940 revenue from personal and corporate income taxes and corporation taxes, plus the statutory subsidies payable in 1947. The components of the second option were \$15.00 per capita of provincial population in 1942, plus the statutory subsidies payable in 1947. A special arrangement was made for Prince Edward Island which was offered a flat amount of \$2,100,000—a sum slightly in excess of the amount determined by either of the two formulas.

An important difference in this basis of compensation from that used in the Wartime Tax Agreements, 1942, was that the amounts determined under these options constituted only floor payments or guaranteed minimum payments. These were subject to upward adjustment for increases in gross national product per capita and provincial population between the base year of 1942 and the average of the three calendar years preceding the year of payment. If, in any of the three years concerned, the amount calculated was less than the amount of the minimum payment, then the amount of the minimum payment was substituted. The use of these upward adjustment factors was designed to insulate the Provinces against the effects of rising costs, while the use of the three year average was intended to inject a stabilizing element into the payments and, with the guaranteed minimum, to offer protection against the effects of a depression.

The guaranteed minimum annual payments to the provinces under the most favourable option and the adjusted annual payments for the period of the Agreements are shown in Table 29.

An interesting feature of the Agreements was the provision that, in the year following their termination, provincial taxpayers were to be allowed, by the Federal Government, tax credits of a maximum of 5 p.c. of the federal income tax, 50 p.c. of federal succession duties, and one-seventh of federal corporation income tax for similar taxes and duties paid to provincial governments. The main purpose of this provision was to enable the provinces to re-enter these tax fields with greater ease, if they so desired, after the termination of the Agreements.

Under an offer, ancillary to the Agreements, but one which applied to all provinces, whether agreeing or not, the Federal Government pays to each province one-half of the federal corporation income tax collected on income of corporations derived, in the province, from generating and/or distributing to the public, electric energy, gas or steam, where this is the main business of the corporation. This arrangement originally had effect for the five taxation years ending Dec. 31, 1951, but has now been extended under the Tax Rental Agreements Act, 1952, to the five taxation years ending Dec. 31, 1956.

29.—Guaranteed Minimum Annual Payments¹ to Provinces and Yukon Territory under Most Favourable Option, and Adjusted Annual Payments,¹ as Finally Calculated,² for Years Ended Mar. 31, 1948-52.

Province and Option	Guaranteed Minimum Annual Payment	Adjusted Payment 1948	Adjusted Payment 1949	Adjusted Payment 1950	Adjusted Payment 1951	Adjusted Payment 1952	Total Adjusted Payments 1948-52
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland (Second).....	6,209	...	...	8,090	8,912	9,713	26,715
Prince Edward Island (Special arrangement).....	2,100	2,322	2,420	2,641	2,891	3,131	13,405
Nova Scotia (Second).....	10,870	11,994	12,490	13,622	14,905	16,133	69,144
New Brunswick (First).....	8,773	9,756	10,186	11,137	12,214	13,251	56,544
Manitoba (First).....	13,540	14,485	15,002	16,359	17,971	19,531	83,348
Saskatchewan (Second).....	15,291	15,696	16,017	17,215	18,662	20,013	87,603
Alberta (First).....	14,228	15,338	16,029	17,740	19,847	21,958	90,912
British Columbia (First).....	18,120	21,021	23,087	25,794	28,818	31,853	131,163
Yukon Territory (Second)....	89	--	141	159	177	195	672
Totals.....	89,220	91,212	95,372	112,747	124,397	135,778	559,506
Quebec (First) ³	56,382	61,403	67,837	74,800	82,658	90,358	380,056
Ontario (First) ³	67,168	76,409	80,380	88,524	97,717	106,705	449,735
Grand Totals³.....	212,760	232,024	243,589	276,071	304,772	332,841	1,389,297

¹ Subject to deduction of statutory subsidies. See Table 27, p. 1054.

² The payments for all five years were recalculated, according to the terms of the Agreement of June, 1952 in the light of the revised statistics for gross national product and population.

³ The Governments of Quebec and Ontario did not enter into the 1947 Agreement, consequently, the payments shown were not actually made.

The Tax Rental Agreements, 1952.—In December 1950, a Federal-Provincial Conference was held primarily to discuss fiscal and social security matters. At the Conference the Federal Government made an offer for new tax rental agreements which was modified subsequently in minor respects only. This new offer, apart from the amount of the guaranteed minimum payments, contained substantially the same provisions as the 1947 Agreements. The provinces were again to repeal or suspend the same taxes for periods of five years, and were to be compensated in much the same manner although on a larger scale.

One important difference in the 1952 Agreements was that the provincial 5 p.c. corporation income tax levy was abolished; its purpose was fulfilled by an amendment to the federal Income Tax Act by which 5 p.c. was added to the federal rate and a credit of 5 p.c. given on corporation income earned within a non-agreeing province. Another significant difference was that the 1952 Agreements contained additional protection for the provinces in the event of their re-entering the tax fields (temporarily given up) after the end of the five year periods. The credits for personal income and succession duty were unchanged, but the corporation income-tax credit was raised to 7 p.c., and all agreements were guaranteed for five years.

On the compensation side there were several differences. The new guaranteed minimum payments were determined by increasing the guaranteed minimum payments of the 1947 Agreements by the ratio of change in provincial population and in per capita gross national product between 1942 and 1948, the total increase being almost 50 p.c. In addition, a new option was provided which was designed to provide a more up-to-date evaluation of the rental value of the tax fields being rented.

Under this option the guaranteed minimum payment was made up in the following way:—

- (1) The yield of a personal income tax at 5 p.c. of 1948 federal rates applied to 1948 incomes in the province.
- (2) The yield of a tax of $8\frac{1}{2}$ p.c. on corporation profits earned in the province in 1948. (The rate of $8\frac{1}{2}$ p.c. was taken as a fair measure of the corporation tax potential, since it took account of the special taxes on corporations levied traditionally by provinces as well as taxes on corporate profits.)
- (3) The average revenue received by the province from succession duties. (For the agreeing provinces this was the average of the revenue received during the last two years before their succession duties were suspended, and for Ontario and Quebec, the average of the three fiscal years 1946-47, 1947-48 and 1948-49.)
- (4) Statutory subsidies payable to the province for 1948. This option was more favourable to only one Province—Ontario.

Under any one of the three options proposed these guaranteed minimum payments were subject to upward adjustment for changes in gross national product per capita and in provincial population from 1948. However, instead of using as adjustment factors the average of these ratios for the three years preceding the year of payment, there was a choice of the single year, or of the average of the two years preceding the year of payment. Another change was that the 'gross national product', used as an adjustment factor, was changed from the 'gross national product at market prices' to the 'gross national product at factor cost' in order to eliminate the effect of changes in indirect taxes.

All provinces, with the exception of Quebec, as well as the Yukon and Northwest Territories have signed Agreements. Ontario chose to retain its succession duties and will receive reduced compensation on this account.

The guaranteed minimum annual payments under the 1952 Agreements, and the estimated payments for the fiscal year 1952-53, are shown in Table 30.

30.—Guaranteed Minimum Annual Payments to Provinces and Territories under Most Favourable Option, and Adjusted Annual Payments as Estimated for the Year Ended Mar. 31, 1953.

Province and Option	Guaranteed Minimum Payments ¹	Adjusted Payments in 1952-53 ²	Territory and Option	Guaranteed Minimum Payments ¹	Adjusted Payments in 1952-53 ²
	\$'000	\$'000		\$'000	\$'000
Newfoundland (First).....	9,175	12,292	Yukon Territory (First).....	170	230
Prince Edward Island (First)...	2,977	3,916	Northwest Territories (First)	186	239
Nova Scotia (First).....	15,348	20,150			
New Brunswick (First).....	12,576	16,625	Totals.....	231,527	311,701
Ontario (Second) ³	101,801	137,173			
Manitoba (First).....	18,635	24,760	Quebec (First) ⁴	85,080	115,004
Saskatchewan (First).....	20,026	25,571			
Alberta (First).....	20,986	29,369	Canada⁴.....	316,607	426,705
British Columbia (First).....	29,647	41,376			

¹ Subject to deduction of statutory subsidies payable in 1952. See Table 27, p. 1054.
² Subject to recalculation after Feb. 28, 1957, in the light of revised statistics for gross national product and population then available.
³ Subject to a deduction for succession duty credits allowed by the Federal Government for provincial succession duties paid to Ontario, since Ontario retained its succession duties. This is estimated at \$10,205,000 for 1952-53.
⁴ Quebec had not entered the 1952 Agreement as at Oct. 31, 1952.

Subsection 5.—National Debt

The gross national debt of Canada at Mar. 31, 1914, was \$544,391,369 as against assets of \$208,394,519, leaving a comparatively small net debt of \$335,996,850 incurred almost completely for public works of general utility which, like the inter-colonial and transcontinental railways and the canal system, remained assets, though perhaps not realizable assets, of the nation; the debt was also expanded by the subsidizing of enterprises like the Canadian Pacific Railway, which, though not government-owned, assisted greatly in extending the area of settlement as well as the productive and, therefore, the taxable capacity of the country. Broadly speaking, the debt was incurred for productive purposes and was held mainly outside the country, the principal of the Federal Government funded debt payable at London, England, being \$302,842,485 on Mar. 31, 1914, as against only \$717,453 payable in Canada.

From 1914 to 1920, the gross debt increased by almost \$2,500,000,000 to a total of \$3,042,000,000 due to heavy war and post-war expenditure and, while there was a slight reduction to a low point of \$2,544,586,411 at Mar. 31, 1930, additional expenditure during the depression years resulted in a gross debt of \$3,710,610,593 by Mar. 31, 1939.

From 1939 to 1946 there was an increase of \$15,249,235,590, incurred mainly for war purposes, bringing the total gross debt to \$18,959,846,183 at the end of March 1946. After deduction of active assets held by the Government, the net debt showed an increase of \$10,268,846,135 during this period, amounting to \$13,421,405,449 at the end of March 1946. At the end of March 1952, total gross debt had been reduced to \$17,257,668,676 and net debt to \$11,185,281,546.

The portion of the funded debt, payable in foreign currencies, decreased sharply during the war years, as was inevitable under conditions where almost the entire amount of the country's war financing was carried out through domestic operations. Of the total funded debt and treasury bills outstanding as at Mar. 31, 1952, amounting to \$14,695,410,451, 2.70 p.c. only was payable outside Canada: \$53,119,649 being payable at London and \$343,432,500 at New York.

31.—Summary of the Public Debt and Interest Payments thereon, Years Ended Mar. 31, 1941-52

NOTE.—Statistics for the years 1867-99 are given at pp. 775-776 of the 1942 Year Book; those for 1900-13 at p. 944 of the 1945 edition; those for 1914-35 at p. 972 of the 1947 edition; and those for 1936-40 at p. 1,009 of the 1951 edition.

Year	Gross Debt	Net Active Assets	Net Debt	Net Debt Per Capita ¹	Increase or Decrease of Net Debt During Year	Interest Paid on Debt	Interest Received from Active Assets	Interest Paid Per Capita ¹
	\$	\$	\$	\$	\$	\$	\$	\$
1941...	5,018,928,037	1,370,236,588	3,648,691,449	317.08	377,431,802	139,178,670	14,910,554	12.10
1942...	6,648,823,424	2,603,602,263	4,045,221,161	347.11	396,529,712	155,017,901	21,748,701	13.30
1943...	9,228,252,012	3,045,402,911	6,182,849,101	524.19	2,137,627,940	188,556,249	41,242,237 ²	15.99
1944...	12,359,123,230	3,619,038,337	8,740,084,893	731.63	2,557,235,792	242,681,180	48,281,313 ²	20.31
1945...	15,712,181,527	4,413,819,509	11,298,362,018	935.91	2,558,277,125	318,994,821	60,749,186 ²	26.42
1946...	18,959,846,183	5,538,440,734	13,421,405,449	1,091.88	2,123,043,431	409,134,502	70,914,626 ²	33.28
1947...	17,698,195,740	4,650,439,192	13,047,756,548	1,039.58	-373,618,901	464,394,876 ²	69,438,880 ²	37.00
1948...	17,197,348,981	4,825,712,088	12,371,636,893	964.80	-676,119,656	455,455,204	75,799,912 ²	35.52
1949...	16,950,403,795	5,174,269,643	11,776,134,152	875.74	-595,502,741	465,137,958 ²	107,888,905 ²	34.59
1950...	16,750,756,246	5,106,147,047	11,644,609,199	849.23	-131,524,953	439,816,335	91,528,987 ²	32.08
1951...	16,923,307,028	5,849,992,080	11,433,314,948	816.14	-211,294,251	425,217,500	89,529,233 ²	30.35
1952...	17,257,668,676	6,072,387,129	11,185,281,546	775.14	-248,033,402	432,423,082 ²	117,621,906 ²	29.97

¹ Based on the official estimates of population given at p. 143.

² This amount represents return on investments, which includes interest on investments, profits of Bank of Canada and other items.

³ The apparent increase in interest paid is due to the accrued interest on refundable taxes having been charged in the year of repayment.

⁴ Excludes \$87,510,068 adjustment required to place interest on public debt on accrued basis.

Interest-Bearing Debt.—The interest-bearing debt of Canada has shown a sharp increase since 1939, amounting to \$16,201,876,542 at Mar. 31, 1952, compared with \$3,658,414,748 at the same date in 1939. The average rate of interest on this debt continued downward during the war years, reaching the low point of 2.547 p.c. at Mar. 31, 1945. Slight increases in 1946, 1947 and 1948 were recorded, and the rate stood at 2.710 p.c. at Mar. 31, 1948, but decreased slightly to 2.677 at Mar. 31, 1950, and increased to 2.783 at Mar. 31, 1952. This is in contrast with the experience of World War I, when the average interest rate on the direct debt of the nation rose from 3.368 p.c. at Mar. 31, 1913, to a high point of 5.164 p.c. at Mar. 31, 1922.

During the fiscal year ended Mar. 31, 1939, interest on the public debt absorbed about 26 p.c. of total Government receipts. Interest on the debt in later years has absorbed a smaller portion of revenue, amounting to less than 11 p.c. in the year ended Mar. 31, 1952, that is if the amount necessary to place interest on public debt on the accrual basis is excluded.

32.—Interest-Bearing Debt, Annual Interest Charges thereon and Average Rates of Interest, as at Mar. 31, 1946-52

NOTE.—Statistics for the years 1913-35 are given at p. 977 of the 1947 Year Book; and for 1936-45 at p. 1010 of the 1951 edition.

Year	Bonds, Debentures and Treasury Bills	Annual Interest Charges on Bonds, Debentures, and Treasury Bills	Average Interest Rate on Bonds, Debentures and Treasury Bills	Post Office Savings Bank Deposits, Trust and Other Funds	Annual Interest on Savings Bank Deposits and Other Funds	Total Interest-Bearing Debt ¹	Annual Interest Charge	Average Rate of Interest
	\$	\$	p.c.	\$	\$	\$	\$	p.c.
1946...	16,807,177,765 ²	436,223,927	2.595	494,177,833	19,517,520	17,301,355,598	455,741,447	2.634
1947...	16,541,900,182 ²	437,851,241	2.647	570,226,510	22,538,419	17,112,126,692	460,392,237	2.690
1948...	15,957,382,594 ²	424,089,017	2.658	674,555,372	26,625,452	16,631,937,966	450,714,469	2.710
1949...	15,585,036,580 ²	411,586,086	2.641	778,259,106	30,584,639	16,363,295,686	442,170,725	2.702
1950...	15,188,138,961 ²	395,842,709	2.606	893,025,484 ²	34,709,502 ²	16,081,164,445 ²	430,552,211 ²	2.677
1951...	15,026,779,646 ²	390,401,345	2.598	1,066,653,327	41,450,793	16,093,432,973	431,852,138	2.683
1952...	14,695,410,451	392,046,658	2.668	1,506,466,091	58,838,801	16,201,876,542	450,885,459	2.783

¹ Includes bonds purchased and held by the Treasury for sinking funds.
² Includes refundable portion of income tax and excess profits tax.

³ Includes refundable portion of the excess profits tax.

Funded Debt Operations.—Conversions and other national debt operations carried out between 1914 and 1930 are dealt with in the Year Book 1933, pp. 842-843, those between 1931 and 1934 in the Year Book 1934-35, pp. 905-907; those of the fiscal years 1935 to 1949 in subsequent editions.

Treasury Bills.—Since 1934 a market for short-term treasury bills has proved highly satisfactory. Each issue, with two exceptions (where the bills were sold direct to the Bank of Canada), has been offered for public tender. Lists of treasury bills sold by public tender for the fiscal years ended 1934-46 appear in the respective

Year Books beginning with the 1937 edition. Details of the issues in continuation of the list published in the Year Book 1942 at p. 778 may be obtained on request from the Department of Finance, Ottawa, Ont.

**33.—Unmatured Funded Debt and Treasury Bills as at Mar. 31, 1952,
and Annual Interest Payable Thereon**

Date of Maturity	Description	Rate	Where Payable	Amount of Loan		Annual Interest Charge	
				\$	cts.	\$	cts.
1952—May 1	Treasury Notes.....	1½	Canada	200,000,000	00	2,250,000	00
Aug. 27	Deposit Certificates.....	1½	Canada	200,000,000	00	2,250,000	00
Sept. 1	Treasury Notes.....	1½	Canada	550,000,000	00	7,562,500	00
Nov. 1	Loan of 1949.....	1½	Canada	300,000,000	00	4,500,000	00
Nov. 1	Loan of 1950.....	1½	Canada	300,000,000	00	5,250,000	00
1953—Mar. 1	Bonds.....	1½	Canada	325,000,000	00	4,875,000	00
Nov. 1	Loan of 1951.....	2	Canada	200,000,000	00	4,000,000	00
1954—Mar. 1	Second Victory Loan.....	3	Canada	676,355,489	00 ¹	20,089,767	00
Dec. 15	Refunding Loan.....	2	Canada	395,000,000	00	7,900,000	00
1956—July 1	Loan of 1950.....	2½	Canada	400,000,000	00	9,000,000	00
Nov. 1	Third Victory Loan.....	3	Canada	855,607,410	50 ²	25,414,081	50
Nov. 1	Canada Savings Series I.....	2½	Canada	199,260,650	00	5,479,667	88
1957—May 1	Fourth Victory Loan.....	3	Canada	1,111,261,650	00	33,337,849	50
Nov. 1	Canada Savings Series II.....	2½	Canada	105,967,400	00	2,914,103	50
1958—June 1	Loan of 1938-39.....	3	Canada	88,200,000	00	2,646,000	00
Sept. 1	Loans of 1933.....	4	London	1,771,954	03	70,878	16
Nov. 1	Canada Savings Series III.....	2½	Canada	100,783,400	00	2,771,543	50
1959—Jan. 1	Fifth Victory Loan.....	3	Canada	1,197,324,750	00	35,919,742	50
Nov. 1	Canada Savings Series IV.....	2½	Canada	148,278,250	00	4,050,151	87
1960—June 1	Sixth Victory Loan.....	3	Canada	1,165,300,350	00	34,959,010	50
Nov. 1	Canada Savings Series V.....	2½	Canada	149,146,900	00	4,074,039	75
1961—Jan. 15	Loan of 1936.....	3½	New York	47,370,000	00	1,539,525	00
1962—Feb. 1	Seventh Victory Loan.....	3	Canada	1,315,639,200	00	39,469,176	00
Aug. 1	Canada Savings Series VI.....	3½	Canada	357,649,750	00	12,517,741	25
1963—July 1	Loan of 1938.....	3½	London	1,960,698	43	63,722	70
July 1	Stock.....	3	London	49,386,996	51	1,481,609	90
Aug. 1	Loan of 1948.....	3	New York	148,031,250	00	4,440,937	50
Oct. 1	Eighth Victory Loan.....	3	Canada	1,295,819,350	00	38,874,580	50
1966—June 1	Loan of 1936.....	3½	Canada	54,703,000	00	1,777,847	50
Sept. 1	Ninth Victory Loan.....	3	Canada	1,691,796,700	00	50,753,901	00
1968—June 15	Loan of 1950.....	2½	Canada	350,000,000	00	9,625,000	00
1974—Sept. 1	Bonds.....	2½	New York	98,687,500	00	2,713,906	25
1975—Sept. 15	Bonds.....	2½	New York	49,343,750	00	1,356,953	12
Perpetual	Loan of 1936.....	3	Canada	55,000,000	00	1,650,000	00
1952—Apr. 4	Treasury Bills.....	0-889	Canada	75,000,000	00	666,750	00
Apr. 18	Treasury Bills.....	0-890	Canada	75,000,000	00	667,500	00
May 2	Treasury Bills.....	0-894	Canada	75,000,000	00	670,500	00
May 23	Treasury Bills.....	0-909	Canada	75,000,000	00	681,750	00
June 6	Treasury Bills.....	0-921	Canada	75,000,000	00	690,750	00
June 20	Treasury Bills.....	0-943	Canada	75,000,000	00	707,250	00
	War Savings Certificates.....	3	Canada	62,764,052	11	1,882,921	56
Totals, Unmatured Funded Debt and Treasury Bills.....				14,695,410,450	55	392,046,657	94
Payable in Canada.....				14,298,858,301	61		
Payable in London.....				53,119,648	97		
Payable in New York.....				343,432,500	00		

¹ Redeemable at 101 percent. Amount outstanding includes \$6,696,589.00 redemption bonus.

² Redeemable at 101 percent. Amount outstanding includes \$8,471,360.50 redemption bonus.

34.—Federal Government New Security Issues during the Year Ended Mar. 31, 1952

(Payable in Canada)

Security Issues	Issue Date	Maturity Date	Interest Rate	Price to Government	Yield at Price to Government	Total Amount Issued	Renewals or Reconversion Included in Amount Issued	Amount Issued for Cash
			p.c.	\$	p.c.	\$	\$	\$
Issued to Chartered Banks—								
Deposit certificates	Aug. 29, 1951	Feb. 27, 1952	1½	100·00	1·125	200,000,000	200,000,000	—
Deposit certificates	Feb. 27, 1952	Aug. 27, 1952	1½	100·00	1·375	200,000,000	200,000,000	—
Two-year loan.....	Nov. 1, 1951	Nov. 1, 1953	2	99·15	2·44	64,994,000	64,994,000	—
Totals.....						464,994,000	464,994,000	—
Issued to Bank of Canada—								
Six-month treasury notes.....	May 1, 1951	Nov. 1, 1951	1	100·00	1·000	200,000,000	200,000,000	—
Six-month treasury notes.....	Sept. 1, 1951	Mar. 1, 1952	1½	100·00	1·125	550,000,000	550,000,000	—
Six-month treasury notes.....	Nov. 1, 1951	May 1, 1952	1½	100·00	1·125	200,000,000	200,000,000	—
Six-month treasury notes.....	Mar. 1, 1952	Sept. 1, 1952	1½	100·00	1·375	550,000,000	550,000,000	—
Two-year loan.....	Nov. 1, 1951	Nov. 1, 1953	2	99·15	2·440	135,006,000	135,006,000	—
Totals.....						1,635,006,000	1,635,006,000	—
Issued to General Public—								
Canada Savings Bonds Series VI, Net.....	Nov. 1, 1951	Aug. 1, 1962	3½	99·3125	...	357,649,750	—	357,649,750
Grand Totals...	...	...	...	...	...	2,457,649,750	2,100,000,000	357,649,750

Guaranteed Debt.—Besides the direct debt of the Federal Government, already dealt with, there are large indirect obligations arising mainly out of the guarantee of securities, by the Federal Government, of the railway lines that now form the Canadian National Railways and the subsequent extensions thereof. Together with these are other small indirect obligations originating in the Government's guarantees of the bonds of the Canadian National Steamship services and of the bonds of the Harbour Commissions issued mainly for harbour improvements. Since 1932, guarantees of certain bank loans have been made under the various Relief Acts. With the commencement of business by the Bank of Canada on Mar. 11, 1935, the guarantee [authorized by Sect. 27 (6) of the Bank of Canada Act] of the deposit required to be maintained in the Bank of Canada by every chartered bank came into force. This guarantee must be implemented "in the event of the property and assets of the Bank being insufficient to pay its liabilities, and if the Bank suspends payment of any of its liabilities".

For full details of other guarantees also outstanding at Mar. 31, 1952, see Schedule "V" to the *Public Accounts* for 1952.

35.—Guaranteed Debt of the Federal Government (Amounts Held by the Public), as at Mar. 31, 1946-52

NOTE.—Figures for the years 1914-23 are given at p. 837 of the 1943-44 Year Book; those for 1924-35 at p. 978 of the 1947 edition and those for 1936-45 at p. 1013 of the 1951 edition.

Year	Railways, Guaranteed as to Principal and Interest	Railways, Guaranteed as to Interest Only	Canadian National Steam- ships	Harbour Com- missions	Other Guarantees	Bank of Canada	Total
	\$	\$	\$	\$	\$	\$	\$
1946.....	502,265,560	8,358,001	9,400,000	20,958,182	9,188,294 ¹	518,135,599	1,068,305,636
1947.....	528,505,889	8,309,454	9,400,000	20,739,182	14,724,473 ¹	536,264,805	1,117,943,803
1948.....	483,502,968	8,304,100	9,400,000	20,739,182	20,631,122 ¹	519,211,261	1,061,788,633
1949.....	518,500,224	6,985,175	9,400,000	19,756,282	28,718,353 ¹	540,250,731	1,123,610,765
1950.....	553,433,724	6,985,175	9,400,000	671,282	70,217,282 ¹	567,309,813	1,208,017,276
1951.....	559,433,723	6,985,175	9,400,000	671,282	38,460,873 ¹	552,915,324	1,167,866,377
1952.....	511,411,723	6,985,175	9,400,000	671,282	69,204,683 ¹	656,529,140	1,254,202,003

¹ Excludes indeterminate amounts and amounts not yet determined.

Section 3.—Provincial Public Finance*

Commencing with 1946, the statistics appearing in this Section have been prepared on a basis not strictly comparable with those given for previous years. Certain of the former major classifications have been eliminated or redistributed; in the case of tables dealing with debt, the totals are comparable with previous years but the classification has been revised.

In order to prepare comparable statistics it is essential that data be presented, to the greatest possible extent, in terms of uniform categories. In many instances, activities relating to a specific function are excluded by some provincial governments from their ordinary account, whereas similar activities are included by other provinces. The special or administrative funds of this nature so excluded are, therefore, added to provincial ordinary account to arrive at 'general' revenue and expenditure. For this reason it is obvious that total revenue and total expenditure presented herein will differ considerably from totals shown in provincial public accounts.

Fiscal periods dealt with are as nearly coincident as is possible in view of the variations in provincial fiscal year-ends. For example, figures shown for 1949 are for the following fiscal year-ends: Nova Scotia, Nov. 30, 1949; New Brunswick, Oct. 31, 1949; and all other provinces, Mar. 31, 1950.

* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics. Further details are given in the D.B.S. annual report, *Financial Statistics of Provincial Governments*. Years referred to throughout this Section are fiscal years ended nearest Dec. 31 of year stated.

Subsection 1.—Revenue and Expenditure of Provincial Governments

The figures of revenue and expenditure presented in this Subsection do not agree with those shown in Tables 1 and 3, pp. 1021 and 1023, because of differences in the methods used to compute 'net' figures.

Tables 36, 37 and 38 present a general summary of provincial government finance by combining ordinary and capital account revenue and expenditure on a net basis. These tables provide a more valid comparison between provinces and between years than those based on ordinary account alone because certain types of expenditure may be made through ordinary account in one year and through capital account in another. 'Net General Revenue' is arrived at by deducting from 'Gross General Revenue' as shown in Table 39: (a) all institutional revenue; (b) interest, premium, discount and exchange; and (c) grants-in-aid and shared-cost contributions received from other governments. This revenue is also deducted from the pertinent functions of expenditure to arrive at 'Net General Expenditure'. While the surplus position is the same in the gross and net presentation, the former emphasizes the gross administrative burden of services and the latter shows the net cost of these services. 'Net Capital Expenditure' is arrived at by deducting all capital revenue from 'Gross Capital Expenditure'.

The classification of revenue by source and of expenditure by function was revised considerably in 1946; details of these changes may be found in the Year Book 1951, p. 1,014. In 1948 there were certain additional changes; motor-fuel and fuel-oil sales taxes were combined into one total and general retail sales taxes, which have grown in significance, were taken out of 'Sales Taxes—Other Commodities and Services' and shown as a separate item. In 1949, education expenditure previously classified as 'Employment Training Programs', is no longer shown separately but is included in 'Schools Operated by Local Authorities' or 'Universities, Colleges and Other Schools'.

Newfoundland is included in provincial financial statistics for the first time in 1949. Liquor Control revenue appears under five headings: 'Taxes—Alcoholic Beverages', 'Privileges, Licences and Permits—Liquor Control and Regulation', 'Fines and Penalties', 'Contributions from Government Enterprises—Liquor Profits', and 'Other Revenue'; the latter includes confiscations under liquor control.

36.—Net General Revenue and Net Combined General and Capital Expenditure of Provincial Governments, Fiscal Years 1946-49

Province	Revenue				Expenditure			
	1946	1947	1948	1949	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland.....	...	...	...	17,424	...	...	...	20,077
P. E. Island.....	3,511	4,658	4,730	5,091	4,065	6,305	5,915	6,743
Nova Scotia.....	21,659	32,389	32,667	34,249	24,614	35,316	44,346	52,703
New Brunswick...	20,055	28,844	28,453	29,431	25,547	34,130	42,484	40,037
Quebec.....	151,372	193,756	203,258	207,040	148,670	189,862	234,027	197,651
Ontario.....	150,732	223,213	220,024	235,421	161,752	203,539	250,738	280,550
Manitoba.....	22,729	34,004	35,902	38,042	19,218	27,963	35,897	38,851
Saskatchewan.....	37,370	53,312	56,332	61,275	35,337	52,539	55,375	60,446
Alberta.....	36,598	47,510	62,957	88,363	32,353	43,989	55,938	58,729
British Columbia..	57,763	72,004	100,678	124,265	57,322	85,032	109,550	163,267
Totals.....	501,789	689,690	745,001	840,601	508,878	678,675	834,270	925,034

¹ Eleven months due to change in fiscal year.

37.—Details of Net General Revenue of Provincial Governments, Fiscal Years 1948 and 1949

Item	1948	1949 ¹	Item	1948	1949 ¹
	\$'000	\$'000		\$'000	\$'000
Taxes—			Other Governments—		
Corporation.....	22,509	20,928	Dominion - Provincial taxation agreement.....	84,272	79,931
Income—			Share income tax on power utilities.....	—	1,490
Corporation.....	87,604	105,948	Federal subsidies.....	16,965	25,541
Individual.....	186	122			
Property.....	6,315	5,731	Totals, Federal.....	101,237	106,962
Sales—			Municipalities.....	1,727	865
Alcoholic beverages.....	1,470	1,477	Totals, Other Governments.....	102,964	107,827
Amusements and admissions.....	16,918	20,533			
Motor-fuel and fuel-oil.....	125,348	138,769	Contributions from Government Enterprises and Other Funds—		
General ²	48,351	61,900	Liquor profits.....	102,521	106,803
Tobacco.....	8,894	9,578	Other.....	4,615	3,816
Other commodities and services.....	2,992	3,265	Other Revenue.....	923	1,086
Succession duties.....	29,125	28,838			
Other.....	13,741	20,739	Totals, excluding Non-Revenue and Surplus Receipts.....	741,857	837,831
Totals, Taxes.....	363,453	417,828			
Privileges, Licences and Permits—			Non-Revenue and Surplus Receipts—		
Liquor control and regulation.....	25,011	25,932	Refunds of previous years' expenditure.....	481	530
Motor-vehicle.....	50,573	58,198	Refunds of advances credited to revenue.....	1,943	2,219
Natural resources.....	58,736	81,670	Other.....	720	21
Other.....	10,923	12,219			
Totals, Privileges, Licences and Permits.....	145,248	178,019	Totals, Non-Revenue and Surplus Receipts.....	3,144	2,770
Sales and Services.....	20,046	20,222	Grand Totals.....	745,001	840,601
Fines and Penalties.....	2,087	2,230			

¹ Includes Newfoundland.² Formerly included under 'Other commodities and services'.

38.—Details of Net Combined General and Capital Expenditure of Provincial Governments, Fiscal Years 1948 and 1949

Item	1948	1949 ¹	Item	1948	1949 ¹
	\$'000	\$'000		\$'000	\$'000
General Government—			Transportation and Communications—		
Executive and administrative.....	27,752	28,066	Highways, roads and bridges.....	252,356	249,455
Legislative.....	6,240	4,292	Railways.....	42	301
Research, planning and statistics.....	288	314	Telephone, telegraph and wireless.....	16	25
Totals, General Government.....	34,280	32,672	Waterways.....	2,232	3,914
			Other.....	4	6
Protection of Persons and Property—			Totals, Transportation and Communications.....	254,650	253,701
Law enforcement.....	9,347	10,494	Health and Social Welfare—		
Corrections.....	9,674	10,807	Health—		
Police protection.....	8,574	12,706	General.....	2,741	2,768
Other.....	7,334	11,859	Public health.....	9,725	9,495
Totals, Protection of Persons and Property.....	34,929	45,866	Medical, dental and allied services.....	4,327	4,984
			Hospital care.....	85,568	125,804
			Totals, Health.....	102,361	143,051

¹ Includes Newfoundland.

38.—Details of Net Combined General and Capital Expenditure of Provincial Governments, Fiscal Years 1948 and 1949—concluded

Item	1948	1949 ¹	Item	1948	1949 ¹
Health and Social Welfare—concluded	\$'000	\$'000		\$'000	\$'000
Social Welfare—			Trade and Industrial Development.....	4,354	5,094
Aid to aged persons.....	30,764	40,059	Local Government Planning and Development.....	1,270	1,289
Aid to blind persons.....	1,229	1,520	Debt Charges ⁴	88,131	101,341
Aid to unemployed employables and unemployables..	7,020	12,566	Contributions to Other Governments—		
Mothers' allowances.....	14,402	16,063	Shared-revenue contributions	6,659	11,079
Child welfare.....	2,651	3,815	Subsidies.....	6,131	3,797
Labour.....	2,793	2,017	Totals, Contributions to Other Governments.....	12,790	14,876
Other.....	2,737	4,013			
Totals, Social Welfare.....	61,596	80,053	Contributions to Government Enterprises and Other Funds.	9,934	13,687
Totals, Health and Social Welfare.....	163,957	223,104	Other Expenditure.....	6,452	5,324
Recreational and Cultural Services.....	4,888	5,654	Totals, Excluding Non-Expense and Surplus Payments	832,486	923,000
Education—					
Schools operated by local authorities.....	95,475	115,988	Non-Expense and Surplus Payments—		
Universities, colleges and other schools.....	33,024	32,069	Advances.....	191	205
Education of the handicapped	1,016	1,287	Refunds of previous years' revenue.....	115	204
Employment training programs.....	2,964	2	Other.....	1,478	1,625
Other.....	9,251	10,909	Totals, Non - Expense and Surplus Payments.....	1,784	2,034
Totals, Education.....	141,730	160,253	Grand Totals.....	834,270	925,034
Natural Resources and Primary Industries—					
Fish and game.....	6,296	7,405			
Forests.....	22,472	28,523			
Lands: settlement and agriculture.....	35,422	34,384			
Minerals and mines.....	3,362	4,258			
Other.....	7,569	-14,431 ³			
Totals, Natural Resources and Primary Industries...	75,121	60,139			

¹ Includes Newfoundland.

universities, colleges and other schools'.

offset against expenditure.

\$48,677,000 in 1949.

² Included with 'Schools operated by local authorities' or 'Universities, colleges and other schools'.³ Negative amount because of \$19,641,000 capital revenue⁴ Includes debt retirement amounting to \$38,391,000 in 1948 and

39.—Gross General Revenue and Expenditure of Provincial Governments, Fiscal Years 1946-49

Province	Revenue				Expenditure			
	1946	1947	1948	1949	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland....	...	...	...	19,944	...	...	...	24,542
P. E. Island.....	4,017	5,365	5,697	6,375	3,857	5,092	5,086	6,418
Nova Scotia.....	27,645	38,798	40,253	44,426	24,331	29,306	35,371	44,301
New Brunswick...	24,420	33,791	34,026	36,885	22,200	27,217	32,176	36,997
Quebec.....	173,427	219,269	231,508	244,514	146,754	174,648	197,622	212,605
Ontario.....	180,605	255,876	254,901	280,914	169,450	211,237	258,059	291,425
Manitoba.....	28,725 ¹	41,508	44,107	48,663	23,170 ¹	33,343	39,182	43,340
Saskatchewan....	45,198 ¹	61,907	66,226	72,690	40,112 ¹	56,287	60,729	67,961
Alberta.....	43,167	54,626	71,347	98,626	33,408	38,581	47,444	52,105
British Columbia..	65,401	81,672	119,669	145,090	54,893	79,343	113,327	156,120
Totals.....	592,605	792,812	867,734	998,127	518,175	655,054	788,996	935,814

¹ Eleven months due to change in fiscal year.

Subsection 2.—Debt of Provincial Governments

The average coupon rate of gross bonded debt of Provincial Governments decreased each year from 4.12 p.c. in 1942 to 3.53 p.c. in 1949. Prince Edward Island had the lowest average coupon rate in 1949 and Alberta in 1950.

40.—Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments, Fiscal Years 1946-50

Year	Bonded Debt	Average Coupon Rate	Average Term of Issue	Bonded Debt	Average Coupon Rate	Average Term of Issue
				Newfoundland		
				\$'000	p.c.	yrs.
1949.....				6,223	3.34	22.3
1950.....				6,223	3.34	22.3
	Prince Edward Island			Nova Scotia		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1946.....	11,583	3.59	13.0	105,780	3.76	19.6
1947.....	11,023	3.29	12.7	99,345	3.58	18.9
1948.....	13,873	3.18	12.0	124,470	3.42	17.0
1949.....	15,402	3.13	12.3	141,098	3.38	16.5
1950.....	15,666	3.09	12.5	156,632	3.29	16.8
	New Brunswick			Quebec		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1946.....	117,029	3.76	18.5	408,311	3.47	17.3
1947.....	123,681	3.60	18.3	390,275	3.45	17.2
1948.....	137,967	3.55	18.2	437,900	3.36	17.2
1949.....	158,654	3.51	17.3	419,450	3.43	17.4
1950.....	165,842 ¹	3.48	17.3	420,085	3.39	17.7
	Ontario			Manitoba		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1946.....	591,790	3.70	21.1	75,233	4.24	24.0
1947.....	576,947	3.77	22.0	62,806	4.27	25.4
1948.....	583,349	3.64	21.2	74,686	4.07	23.3
1949.....	654,503	3.56	21.2	91,480	3.82	21.5
1950 ^p	672,667 ¹	3.52	21.9	98,446	3.68	19.6

¹ Excludes bonds assumed by the Province.

40.—Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments, Fiscal Years 1946-50.—concluded

Year	Bonded Debt	Average Coupon Rate	Average Term of Issue	Bonded Debt	Average Coupon Rate	Average Term of Issue
	Saskatchewan			Alberta		
	\$'000	p. c.	yrs.	\$'000	p. c.	yrs.
1946.....	129,300	4.30	20.5	113,130	3.47	23.7
1947.....	138,329	4.24	20.0	108,565	3.38	22.3
1948.....	142,460	4.20	19.4	108,289	3.37	22.3
1949.....	130,822	4.16	19.6	168,700	3.16	20.5
1950.....	134,594	4.02	19.5	88,765	2.86	15.0
	British Columbia			Totals		
	\$'000	p. c.	yrs.	\$'000	p. c.	yrs.
1946.....	120,069	3.94	21.7	1,672,225	3.73	20.2
1947.....	130,884	3.82	22.0	1,641,855	3.66	20.3
1948.....	143,984	3.69	21.7	1,766,978	3.61	19.8
1949.....	168,763	3.55	21.2	1,955,095	3.53	19.5
1950.....	185,820	3.36	20.0	1,944,740 ¹	3.46	19.3

¹ Excludes bonds assumed by the Province.

41.—Total Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments, by Currency of Payment, Fiscal Years 1946-50

Payable in—	1946	1947	1948	1949 ¹	1950 ^{1,2}
	\$'000	\$'000	\$'000	\$'000	\$'000
Canada only.....	1,030,826	1,057,162	1,210,291	1,361,933	1,421,651
London (England) only.....	36,912	29,957	29,958	28,670	19,359
London (England) and Canada.....	16,214	11,405	8,721	7,582	2,974
New York only.....	21,905	3,000	—	—	16,875
New York and Canada.....	335,395	318,753	301,787	346,182	300,867
London (England), New York and Canada.....	226,237	221,578	216,221	210,728	183,014
Other.....	4,736	—	—	—	—
Totals.....	1,672,225	1,641,855	1,766,978	1,955,095	1,944,740

¹ Includes Newfoundland.

² Excludes bonds assumed by the Provinces.

42.—Provincial Government Net Direct and Indirect Debt (less Sinking Funds), 1948

Direct and Indirect Debt		P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Direct Debt											
Bonded debt.....		13,873	124,470	137,967	437,900	583,349	74,686	142,460	108,289	113,994	1,766,978
Less Sinking Funds.....		1,833	13,200	22,044	85,771	48,530	24,092	44,053	—	21,536	264,059
Totals, Net Bonded Debt.....		12,040	111,270	115,923	352,129	534,819	50,594	98,407	108,289	119,418	1,502,919
Treasury Bills—											
Held by Federal Government.....		—	—	—	—	—	18,804	41,793	12,537	24,347	97,481
Held by others.....		—	—	3,500	7,100	—	7,340	6,262	—	15,670	39,872
Totals, Treasury Bills.....		—	—	3,500	7,100	—	26,144	48,055	12,537	40,017	137,353
Savings certificates and deposits.....		1,561	—	—	—	64,408	—	—	1,051	—	67,020
Temporary loans and overdrafts.....		—	1,485	5,897	—	—	—	—	—	—	7,382
Bonds (or debentures) due.....		—	270	156	—	—	—	—	—	—	439
Bonds (or debentures) interest due.....		—	142	—	187	—	—	—	629	—	958
Accounts and Other Payables—											
Trust funds and other deposits.....		31	—	246	7,080	16,118	2,271	1,914	6,075	6,000	39,735
Other.....		42	4,865	61	15,190	4,934	149	2,027	4,042	13,456	44,766
Accrued interest and other accrued expenditure.....		—	850	1,670	3,407	7,262	2,088	1,102	1,192	2,048	19,619
Totals, Net Direct Debt (less Sinking Funds).....		13,674	118,882	127,453	385,093	627,542	81,246	151,505	133,827	180,969	1,820,191
Indirect Debt											
Guaranteed bonds or debentures.....		—	1,184	2,871	240,116	249,339	935	330	38	7,010	502,423
Less Sinking Funds.....		—	91	270	182	12	—	284	—	2,624	3,463
Totals, Net Guaranteed Bonds or Debentures.....		—	1,093	2,601	240,534	249,327	935	46	38	4,386	498,960
Guaranteed Bank Loans.....		25	717	5,332	1,030	6,999	—	40	1,850	—	16,062
Municipal Improvement Assistance Act loans.....		5	405	327	1,417	2,900	105	525	449	1,370	4,733
Other guarantees.....		—	—	—	41,042	—	—	41	—	841	44,824
Totals, Net Indirect Debt (less Sinking Funds).....		30	2,305	8,260	284,053	259,226	1,040	632	2,346	6,597	564,509
Totals, Net Direct and Indirect Debt (less Sinking Funds).....		13,704	121,187	135,713	669,146	886,768	82,286	152,137	136,173	187,566	2,384,700

43.—Provincial Government Net Direct and Indirect Debt (less Sinking Funds), 1919

Direct and Indirect Debt		Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Direct Debt												
Bonded debt.....		6,223	15,402	141,098	158,654	419,450	654,503	91,480	130,822	168,700	168,763	1,955,095
Less Sinking Funds.....		2,051	1,861	14,352	25,326	90,880	69,152	24,104	24,812	59,721	31,667	343,956
Totals, Net Bonded Debt.....		4,142	13,541	126,716	133,328	328,570	585,351	67,376	106,010	108,979	137,096	1,611,109
Treasury Bills—												
Held by Federal Government.....		—	—	—	—	—	—	18,306	39,539	12,187	23,671	93,703
Held by others.....		—	—	—	500	17,950	—	7,795	700	—	12,435	39,380
Totals, Treasury Bills.....		—	—	—	500	17,950	—	26,101	40,239	12,187	36,106	133,083
Savings certificates and deposits.....		586	1,075	—	—	—	66,248	—	—	1,082	—	68,991
Temporary loans and overdrafts.....		—	—	4,923	5,075	—	—	—	—	—	—	9,998
Bonds (or debentures) due.....		—	—	27	77	—	—	—	—	3	—	107
Bonds (or debentures) interest due.....		—	—	198	—	96	—	—	—	563	—	857
Accounts and Other Payables—		—	—	—	—	—	—	—	—	—	—	—
Trust funds and other deposits.....		—	73	573	213	8,922	17,197	2,107	1,793	6,997	6,701	44,576
Other.....		7	45	5,416	81	16,248	4,843	163	1,643	3,580	19,680	51,706
Accrued interest and other accrued expenditure.....		214	—	1,105	1,997	3,144	8,040	2,092	1,344	1,340	2,238	21,514
Totals, Net Direct Debt (less Sinking Funds).....		4,949	14,734	138,958	141,271	374,930	681,679	97,839	151,029	134,731	201,821	1,941,941
Indirect Debt												
Guaranteed bonds or debentures.....		4,500	—	1,039	3,401	259,101	391,459	745	257	32	20,972	681,506
Less Sinking Funds.....		—	—	98	288	197	13	—	223	—	2,806	3,625
Totals, Net Guaranteed Bonds or Debentures.....		4,500	—	941	3,113	258,904	391,446	745	34	32	18,166	677,881
Guaranteed bank loans.....		525	15	2,437	6,783	839	2,995	—	95	2,707	—	16,396
Municipal Improvement Assistance Act loans.....		—	5	476	308	1,402	—	96	484	422	1,277	4,476
Other guarantees.....		—	—	—	—	38,040	—	—	41	—	1,042	39,123
Totals, Net Indirect Debt (less Sinking Funds).....		5,025	20	3,954	10,204	299,185	394,441	841	654	3,161	20,485	727,870
Totals, Net Direct and Indirect Debt (less Sinking Funds).....		9,974	14,754	142,912	151,475	674,115	1,076,120	98,680	151,683	137,892	222,306	2,679,811

Section 4.—Municipal Finance*

Subsection 1.—Municipal Assessed Valuations

The revenue resources of municipalities are limited generally to direct taxation based on assessed valuations of real and other types of property. In the Provinces of Prince Edward Island, Nova Scotia, New Brunswick, Manitoba and Alberta, municipalities assess and tax personal property. In Alberta municipal districts, the valuations of personal property assessed have risen sharply with the growth of the oil industry. In Manitoba, the personal property tax is used generally by all classes of municipalities except cities. Aside from property, the most important type of valuation for taxation purposes is business assessment, although not all provinces assess for business purposes separately and distinctly from real property valuations. A variation of methods, schedules and rates exists not only between provinces but also between municipalities within the same province. Some municipalities use the rental basis, others the value of floor space occupied and still others the capital value of the premises occupied. Four of the provinces have other miscellaneous types of assessment, the general nature of which will be noted from the footnotes to Table 44.

It should be noted that the figures in Table 44 are not entirely comparable, on an interprovincial basis, from the standpoint of relative values of properties taxable for municipal purposes. Each province operates under its own assessment laws, which are not all similar either in application or in effect. For instance, in British Columbia cities and municipal districts improvements cannot be taxed on a value in excess of 75 p.c. of taxable values or, in most of the villages, in excess of 50 p.c. of taxable values; the values actually taxed in 1950 ranged from nil to 75 p.c. In the majority of cases, improvements were assessed for tax purposes at 50 p.c. of taxable values, but for all municipalities the total improvements actually taxed represented approximately 51 p.c. of total taxable values. It should also be noted that Table 45 does not include assessed valuations in Improvement Districts for either Saskatchewan or Alberta. In Saskatchewan these amounted to \$26,874,190 in 1946, \$26,892,080 in 1947, \$28,777,035 in 1948, \$31,412,435 in 1949 and \$26,535,545 in 1950; in Alberta the figures for the same years were \$62,753,779, \$68,645,962, \$65,713,818, \$68,244,456 and \$53,557,822, respectively. In addition, there are other intra-provincial inconsistencies between municipalities which, in turn, further affect interprovincial comparisons. These may be said to be owing to the lack of integrated municipal assessment systems and uniform standards for establishing values on a province-wide basis, under the direction and control of a central authority. Some provinces, however, have made considerable progress along these lines in recent years.

* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

44.—Municipal Assessed Valuations, by Provinces, 1946-50

Province and Year	Taxable Valuations on which Taxes were Levied					Total Exemptions
	Real Property	Personal Property	Business	Other ¹	Total	
	\$	\$	\$	\$	\$	\$
Nfld.—						
1949.....	..	..	..	..	..	..
1950.....	..	..	..	..	..	..
P. E. I.—²						
1946.....	10,984,447	4,502,720	...	...	15,487,167	6,101,500
1947.....	11,425,735	4,656,100	...	...	16,081,835	6,176,500
1948.....	12,272,825	5,353,199	...	...	17,626,024	7,456,500
1949.....	13,714,935	5,777,847	...	...	19,492,782	7,456,500
1950.....	16,872,045	6,085,510	...	...	22,957,555	8,588,500
N. S.—						
1946.....	157,154,637	28,015,764	10,153,105	3,716,785	199,040,291	93,799,064
1947.....	163,793,261	30,708,957	10,473,500	3,831,875	208,807,593	95,469,188
1948.....	172,646,093	32,901,111	10,866,035	3,934,300	220,347,539	98,190,291
1949.....	179,425,853	35,658,983	11,826,635	4,039,860	230,951,331	96,594,851
1950.....	186,588,461	36,277,551	12,527,060	4,212,700	239,605,772	100,567,331
N. B.—						
1946.....	172,431,970	25,603,181	17,628,210 ³	...	215,663,361	..
1947.....	202,428,452	33,671,051	21,704,153 ³	...	257,803,656	..
1948.....	216,747,760	39,148,968	24,838,762 ³	...	280,735,490	..
1949.....	232,968,026	49,867,238	20,242,638	4,548,246	307,626,148	..
1950.....	248,004,509	52,053,312	20,005,507	5,049,366	325,112,684	..
Que.—						
1946.....	..	..	..	..	..	..
1947.....	..	..	..	..	..	..
1948.....	..	..	..	..	..	..
1949.....	..	..	..	..	2,870,933,000	909,585,000 ⁴
1950.....	..	..	..	..	2,530,702,000 ⁵	863,845,000 ⁴
Ont.—						
1946.....	2,890,673,352	...	282,781,011	...	3,173,454,363	440,985,000 ⁶
1947.....	3,030,283,255	...	316,084,049	...	3,346,367,304	639,762,954
1948.....	3,097,590,198	...	337,253,277	...	3,434,843,475	672,486,505
1949.....	3,541,093,264	...	439,425,168	...	3,980,518,432	690,345,875
1950.....	3,724,238,000	...	475,081,000	...	4,199,319,000	813,812,000
Man.—						
1946.....	445,388,374	5,655,410	12,442,215	...	463,485,899	159,400,109
1947.....	459,840,343	6,416,250	14,902,614	...	481,159,207	156,403,203
1948.....	497,463,070	6,444,105	18,689,579	...	522,596,754	145,537,582
1949.....	545,465,305	6,765,685	20,686,352	...	572,907,342	150,227,268
1950.....	567,470,959	6,866,910	23,655,349	...	597,993,218	150,610,692
Sask.—						
1946.....	782,937,261	...	40,073,658	541,552	823,552,471	98,992,996
1947.....	807,306,328	...	42,162,089	374,906	849,843,317	105,992,261
1948.....	828,407,584	...	44,521,364	224,200	873,153,148	126,093,885
1949.....	820,489,189	...	44,803,884	74,830	865,367,903	125,049,181
1950.....	840,894,583	...	45,421,203	72,780	886,388,566	129,356,385
Alta.—						
1946.....	516,607,849	13,026,153	13,120,380	3,297,738	546,052,120	65,334,428
1947.....	558,870,813	12,002,881	11,517,559	3,726,747	590,048,000	66,463,005
1948.....	589,009,501	18,205,092	16,859,417	2,484,700	626,618,740	71,396,730
1949.....	635,773,891	26,337,692	19,690,072	...	681,801,625	76,510,667
1950.....	696,367,285	26,501,370	24,392,850	...	747,261,505	88,450,368
B. C.—						
1946.....	448,357,276 ⁷	...	...	...	448,357,276	433,520,319 ⁸
1947.....	487,636,072 ⁷	...	...	...	487,636,072	454,327,275 ⁸
1948.....	528,714,760 ⁷	...	...	...	528,714,750	495,603,290 ⁸
1949.....	573,460,256 ⁷	...	...	...	573,460,256	530,676,133 ⁸
1950.....	622,441,721 ⁷	...	...	...	622,441,721	574,779,149 ⁸

¹ Includes the following: N.S.—household tax; N.B.—occupancy tax, Fredericton, and rentals tax, Moncton; Sask.—special franchise; Alta.—franchise and other special. ² Includes estimated values for some municipalities; total exemptions are incomplete. ³ Includes some other types of valuations not specified. ⁴ Includes temporary exemptions amounting to \$64,659,000 in 1948 for all municipalities and \$71,154,000 in 1950 for cities and towns only. ⁵ Cities and towns only. ⁶ Cities only.

⁷ Includes \$223,651,933 (1946), \$247,390,470 (1947), \$278,363,097 (1948), \$311,248,321 (1949) and \$347,871,475 (1950), valuation of improvements, the total value of which was \$463,844,049 (1946), \$511,289,782 (1947), \$574,582,394 (1948), \$634,949,978 (1949) and \$852,431,273 (1950), and the maximum value at which they could be taxed was \$292,353,568 (1946), \$379,965,133 (1947), \$430,936,795 (1948), \$476,212,433 (1949) and \$522,294,002 (1950). ⁸ Consists of \$188,328,203 (1946), \$190,427,963 (1947), \$199,388,993 (1948), \$206,974,496 (1949) and \$226,258,620 (1950), valuation of exempted properties, and \$245,192,116 (1946), \$263,899,312 (1947), \$296,214,297 (1948), \$323,701,657 (1949) and \$504,559,798 (1950), exemptions of taxable improvements as referred to in footnote 7.

While complete figures for tax-exempt properties are not available for each province, the information given shows that these properties have assumed relatively high proportions. Most provinces have shown consistent increases in taxable assessed valuations that may be attributed largely to the stimulus to business and industry in general arising from the War and the buoyancy of the economy in succeeding years.

Subsection 2.—Municipal Taxation

Table 45 shows, by provinces, the taxes levied by municipalities in the years 1946-50 inclusive, and the total taxes outstanding at the end of those years. Although these figures are as nearly comparable as existing published reports permit, nevertheless, they still reflect some inconsistencies owing particularly to intraprovincial variations in the division of responsibility for tax administration between municipalities and school authorities. In some instances, school taxes are not included in the municipal levies.

45.—Municipal Taxation, by Provinces, 1946-50

NOTE.—These figures include school taxes only to the extent that such are levied and collected by the municipalities on behalf of local school authorities. Taxes are not included for schools outside incorporated municipal organizations.

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	\$	\$		\$	\$	\$	
Newfoundland—							
1949.....	931,215	845,334	90.8	265,703	...	265,703	28.5
1950.....	1,030,979	969,971	94.1	353,138	...	353,138	34.3
P. E. Island—¹							
1946.....	393,791	403,666	102.5	132,449	..	132,449	33.6
1947.....	445,532	456,380	102.4	232,808	..	232,808	52.3
1948.....	472,380	472,589	100.0	222,960	..	222,960	47.2
1949.....	777,767	761,625	97.9	225,577	..	225,577	29.0
1950.....	864,602	822,688	95.2	244,482	..	244,482	28.3
Nova Scotia—							
1946.....	10,705,668	10,635,395	99.3	3,227,837	204,500	3,432,337	32.1
1947.....	12,054,778	11,437,476	94.9	3,713,902	198,637	3,912,539	32.5
1948.....	12,707,972	12,342,248	97.1	3,806,377	195,841	4,002,218	31.5
1949.....	13,610,727	13,199,199	96.9	4,038,184	179,418	4,217,602	31.0
1950.....	14,320,422	13,946,136	97.4	4,203,943	1,007,109	5,211,052	36.4
New Brunswick—							
1946.....	7,350,407 ²	7,350,087 ²	99.3	3,040,178	..	3,040,178	41.4
1947.....	8,025,491 ²	7,673,308 ²	95.6	2,704,833	93,674	2,798,507	34.9
1948.....	9,141,136 ²	8,426,173 ²	92.2	2,792,139	88,474	2,880,613	31.5
1949.....	11,116,471 ²	10,201,899 ²	91.8	3,544,853	80,629	3,625,482	32.6
1950.....	12,294,380 ²	11,178,375 ²	91.0	4,356,118	183,070	4,539,188	36.9
Quebec—³							
Ontario—							
1946.....	117,628,950	117,925,376	100.3	11,115,210	8,033,594	19,148,804	16.3
1947.....	135,402,232	133,406,269	98.5	10,885,288	5,135,715	16,021,003	11.8
1948.....	149,450,795	148,963,661	99.7	12,765,099	6,163,786	18,928,885	12.7
1949.....	170,378,640	167,154,308	98.1	16,223,329	5,385,640	21,608,969	12.7
1950.....	188,959,809	187,672,943	99.3	17,707,760	4,793,468	22,501,228	12.0

For footnotes, see end of table, p. 1074.

45.—Municipal Taxation, by Provinces, 1946-50—concluded

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	\$	\$		\$	\$	\$	
Manitoba—							
1946.....	21,850,851	24,078,551	110.2	3,321,263	5,875,686	9,196,949	42.1
1947.....	22,913,313	22,495,093	98.2	3,570,625	4,758,020	8,328,645	36.3
1948.....	27,154,286	26,210,912	96.5	4,447,077	4,549,261	8,996,338	33.1
1949.....	30,423,998	29,223,263	96.1	5,528,560	4,266,927	9,795,487	32.2
1950.....	32,658,247	30,416,670	93.1	6,977,569	3,769,230	10,746,799	33.0
Saskatchewan—⁴							
1946.....	26,778,439	27,825,445	103.9	11,309,019	11,272,746	22,581,765	84.3
1947.....	29,337,261	28,712,019	97.9	10,392,172	10,605,292	20,997,464	71.6
1948.....	33,207,061	32,267,890	97.2	9,665,762	10,029,034	19,694,796	59.3
1949.....	35,960,687	33,671,898	93.6	10,412,745	9,407,765	19,820,510	55.1
1950.....	38,177,754	35,081,615	91.9	12,115,867	8,725,251	20,841,118	54.6
Alberta—⁴							
1946.....	23,290,792	24,633,528	105.8	6,748,050	12,833,210	19,581,260	84.1
1947.....	26,290,949	26,474,274	100.7	6,380,108	11,410,124	17,790,232	67.7
1948.....	30,851,696	30,991,142	100.5	6,171,764	12,150,324	18,322,088	59.4
1949.....	35,003,570	34,759,892	99.3	7,650,413	11,028,278	18,678,691	53.4
1950.....	39,562,655	37,311,961	94.3	10,608,071	10,772,481	21,380,552	54.0
British Columbia—							
1946.....	22,623,665	22,684,018	100.3	1,613,434	8,207,688	9,821,122	43.4
1947.....	25,473,598	25,093,044	98.5	1,976,956	7,423,629	9,400,585	36.9
1948.....	28,694,669	28,118,167	98.0	2,547,197	6,627,977	9,175,174	32.0
1949.....	31,567,181	31,119,127	98.6	3,024,234	6,160,178	9,184,412	29.1
1950.....	33,292,455	33,555,169	100.8	3,135,089	5,989,343	9,124,432	27.4

¹ Includes estimates as actual figures are not available in some instances. ² Excludes \$1,366,821 in each of the years 1946 and 1947 and \$2,051,422 in 1948, 1949 and 1950 being compensation through Provincial Government for loss of income tax. ³ No figures available for Quebec since 1945.

⁴ Includes certain provincial and other special taxes (see text following this table), but excludes taxes in Improvement Districts.

Because of the considerable differences in the division of responsibility for services between the provincial governments and their respective municipalities, extreme caution should be exercised in using the figures in Table 45 as a basis for interprovincial comparisons of the relative burden of municipal taxation. Also, in Saskatchewan and Alberta, municipalities are required to levy certain taxes for and on behalf of the provincial government and for other special purposes for which there is no comparable situation in other provinces. The amounts of such taxes included in the municipal levies in these two provinces, are as follows:—

Province and Tax	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$
Saskatchewan—					
Public revenue taxes (provincial)...	1,661,667	1,636,076	1,662,404	1,689,059	1,756,669
Telephone and hail taxes.....	2,106,250	2,293,634	2,067,203	1,770,416	1,936,645
Totals, Saskatchewan.....	3,767,917	3,929,710	3,729,607	3,459,475	3,693,314
Alberta—					
Educational and wild lands taxes (provincial).....	1,009,951 ¹	9,965	11,864	9,101	16,561

¹ Includes social services taxes.

There has been a slow steady rise in the trend of municipal tax levies in recent years. While most provinces show increases, this does not necessarily mean an increased burden on the individual taxpayer in all instances, but is the result, in part at least, of increased assessed valuations. In Nova Scotia and New Brunswick the increases are, to a considerable extent, owing to the establishment of larger school units, so that certain municipalities are now levying taxes formerly levied by rural school boards. During the years 1946-50, tax collections continued high in relation to total levies, resulting in substantial reductions in the amount of taxes outstanding, although these are still relatively high in most provinces. The situation varies considerably for different classes of municipalities.

Reference has been made heretofore to the Improvement Districts in Saskatchewan and Alberta which, although not incorporated municipalities, are maintained more or less as self-sustaining areas on such a basis by the provincial governments. Taxation figures for these Districts are excluded from Table 45, but by reason of the special significance attached to them in relation to municipal organization in these provinces, and the fact that they may become incorporated, or part of existing municipalities at some future date, the corresponding information with regard to them is shown in Table 46.

46.—Taxation in Improvement Districts of Saskatchewan and Alberta, 1946-50

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	\$	\$		\$	\$	\$	
Saskatchewan—¹							
1946.....	686,023	716,446	104.4	1,202,423	233,457	1,435,880	209.3
1947.....	755,824	722,871	95.6	1,189,069	254,876	1,443,945	191.0
1948.....	936,871	981,978	104.8	1,097,074	269,016	1,366,090	145.8
1949.....	1,059,128	998,933	94.3	998,607	316,755	1,315,362	124.2
1950.....	922,214	807,596	87.5	896,170	385,940	1,282,110	139.0
Alberta—							
1946.....	1,944,378	2,314,184	119.0	3,408,445	..	3,408,445	175.3
1947.....	2,189,138	2,380,949	108.8	2,851,758	..	2,851,758	130.3
1948.....	2,117,557	2,321,189	109.6	2,197,955	..	2,197,955	103.8
1949.....	2,826,748	2,707,741	95.8	2,021,843	..	2,021,843	71.5
1950.....	2,338,172	2,219,100	95.0	1,837,339	..	1,837,339	78.6
Totals—							
1946.....	2,630,401	3,030,630	115.2	4,610,868	233,457	4,844,325	184.2
1947.....	2,944,962	3,103,820	105.4	4,040,827	254,876	4,295,703	145.9
1948.....	3,054,428	3,303,167	108.1	3,295,929	269,016	3,564,945	116.7
1949.....	3,855,876	3,706,674	95.4	3,020,450	316,755	3,337,205	85.9
1950.....	3,260,386	3,026,496	92.8	2,733,509	385,940	3,119,449	95.7

¹ Includes public revenue (provincial) taxes amounting to \$53,558 in 1946, \$53,619 in 1947, \$56,636 in 1948, \$62,329 in 1949 and \$52,834 in 1950.

Subsection 3.—Municipal Debt

The rapid growth experienced by municipalities in Canada, coupled with increased demands and responsibilities for improvements, schools, utilities and other services or facilities, has resulted in the incurring of a heavy burden of debt. Debenture borrowings increased rapidly in the period 1900-12 and again during the 1920's and early 1930's. From 1933 to 1946 the trend was downward but since 1947 it has shown a considerable increase.

Several important factors contributed to the 1933-46 decline, not the least important of which was the measure of control exercised by provincial governments over capital expenditure involving the incurring of debt. In addition, there was a more or less orderly retrenchment during the depression years following periods of what proved to be unwarranted expansion which, along with widespread demands to ease the tax burden on real property, resulted in the severe curtailment of capital undertakings and works requiring debenture financing. Also, the greater part of the municipal long-term debt was represented by serial or instalment-type debentures, that require yearly repayments of principal. During the 1930's, the rehabilitation of existing assets and new works and improvements necessitated by normal expansion and development were sacrificed mainly in the interests of the taxpayers. After the outbreak of war in 1939 the policy of deferment was continued, or even extended, to free the financial market to the needs of the Federal Government in meeting war financing requirements. Since the end of the War, however, municipalities, denied improvement programs for so long, have been getting these under way, resulting in increased amounts of debenture debt. Table 47 shows figures of municipal indebtedness for 1949 and 1950 and includes temporary loans and other liabilities in addition to debenture debt.

47.—Debt of Municipal and School Corporations for their Fiscal Years Ended in 1949 and 1950

NOTE.—Figures for Quebec are not available. Figures shown are compiled from published reports of Provincial Departments of Municipal Affairs, auditors reports and financial statements of municipalities, and information secured from other official sources.

Direct and Indirect Debt	Newfoundland		Prince Edward Island		Nova Scotia	
	1949	1950	1949	1950	1949	1950
	\$	\$	\$	\$	\$	\$
Direct Debt—						
Debenture debt.....	3,001,060	3,000,940	3,327,540	3,302,461	39,321,540	42,797,170
Less Sinking Funds.....	121,155	155,211	1,095,584	1,108,682	15,940,862	15,055,025
Net Debenture Debt.....	2,879,905	2,845,729	2,231,956	2,193,779	23,380,678	27,742,145
Temporary loans.....	196,741	289,258	239,111	764,254	6,219,681	7,147,077
Accounts payable and other liabilities.....	235,213	453,643	24,173	72,841	2,135,414	2,605,147
Totals, Direct Liabilities (less Sinking Funds)...	3,311,859	3,588,630	2,495,240	3,030,874	31,735,773	37,494,369
Indirect Debt—						
Guaranteed bonds, debentures, etc.....	..	..	..	..	969,000	1,301,000
Less Sinking Funds.....	..	..	..	..	140,402	171,843
Totals, Indirect Liabilities (less Sinking Funds).....	..	..	..	..	828,598	1,129,157
Grand Totals.....	3,311,859	3,588,630	2,495,240	3,030,874	32,564,371	38,623,526

For footnote, see end of table.

47.—Debt of Municipal and School Corporations for their Fiscal Years Ended in 1949 and 1950—concluded

Direct and Indirect Debt	New Brunswick		Ontario		Manitoba	
	1949	1950	1949	1950	1949	1950
	\$	\$	\$	\$	\$	\$
Direct Debt—						
Debenture debt.....	37,075,478	41,401,809	292,542,236 ²	363,577,852 ²	55,058,894	55,037,724
Less Sinking Funds.....	9,607,397	9,627,802	15,824,031	14,290,227	23,901,211	21,889,961
Net Debenture Debt.....	27,468,081	31,774,007	276,718,205	349,287,625	31,157,683	33,147,763
Temporary loans.....	2,450,526	3,169,979	34,338,259 ²	32,040,861 ²	9,004,296	12,367,397
Accounts payable and other liabilities.....	2,935,601 ⁴	2,458,060 ⁴	37,512,020	40,514,265	6,572,628	7,380,899
Totals, Direct Liabilities (less Sinking Funds)...	32,854,208	37,402,046	348,568,484	421,842,751	46,734,607	52,896,059
Indirect Debt—						
Guaranteed bonds, debentures, etc.....	796,500	689,500	16,171,891	13,710,555	15,167,413	14,882,640
Less Sinking Funds.....	127,207	37,396	265,179	514,746	7,134,983	7,313,921
Totals Indirect Liabilities (less Sinking Funds).....	669,293	652,104	15,906,712	13,195,809	8,032,430	7,568,719
Grand Totals.....	33,523,501	38,054,150	364,475,196	435,038,560	54,767,037	60,464,778
	Saskatchewan		Alberta		British Columbia	
	1949	1950	1949	1950	1949	1950
	\$	\$	\$	\$	\$	\$
Direct Debt—						
Debenture debt.....	30,140,887	32,034,973	63,184,998	80,428,360	137,617,817	146,350,783
Less Sinking Funds.....	9,761,004	8,498,440	1,933,781	1,784,697	37,826,993	38,124,730
Net Debenture Debt.....	20,379,883	23,536,533	61,251,217	78,643,663	99,790,824	108,226,053
Temporary loans.....	2,608,439	3,244,202	2,744,762	3,606,304	932,500	1,266,477
Accounts payable and other liabilities.....	12,024,670	14,256,868	12,368,619 ³	21,066,724 ³	9,438,392	6,806,785
Totals, Direct Liabilities (less Sinking Funds)...	35,012,992	41,037,603	76,364,598	103,316,691	110,161,716	116,299,315
Indirect Debt—						
Guaranteed bonds, debentures, etc.....	..	..	..	..	21,233,152	21,492,617
Less Sinking Funds.....	..	..	..	..	4,193,586	4,491,476
Totals, Indirect Liabilities (less Sinking Funds).....	..	..	..	..	17,039,566	17,001,141
Grand Totals.....	35,012,992	41,037,603	76,364,598	103,316,691	127,201,282	133,300,456

¹ Excludes rural schools. ² Includes \$13,665,946 in 1949 and \$17,635,077 in 1950 capital liabilities (building loans and debentures) for Roman Catholic separate schools and \$710,359 in 1949 and \$657,419 in 1950 for public schools in unorganized areas. ³ Excludes liabilities of schools and other local boards and commissions but includes in lieu thereof amounts due by municipal revenue fund accounts to such schools and other local authorities; information required to make the necessary eliminations on this account is not available from published reports (see footnote 2). ⁴ Includes \$300,000 treasury bills. ⁵ Includes \$1,502,417 treasury bills in 1949 and \$1,457,056 in 1950.

Table 48 gives the debenture principal and interest due, by provinces, for the years 1946 and 1948-50. Statistics are not available for Quebec so that it is not possible to give accurate figures for Canada as a whole. However, the trend has been upward since 1947 in most provinces, a reversal of the decline evident from 1940 to 1946. Retirement of direct debenture debt accounted for the major portion

of that decline. The decreases in debenture debt were due to the factors mentioned on p. 1076, while improved tax collections made it possible for municipalities to avoid heavy temporary borrowings and reduce other current liabilities. However, debenture debt figures are intended to represent only principal unmatured. In general, principal past due, whether in default or unpaid because of non-presentation, is included with accounts payable and other liabilities.

48.—Debenture Principal and Interest Due, by Provinces, 1946 and 1948-50

NOTE.—Figures for Quebec are not available.

Province and Item	1946	1948	1949	1950
	\$	\$	\$	\$
Newfoundland—				
Principal.....	...	...	—	—
Interest.....	...	...	4,823	4,697
Totals, Newfoundland.....	...	...	4,823	4,697
Prince Edward Island—				
Principal.....	3,600	4,100	1,600	5,600
Interest.....	5,556	6,344	6,204	6,865
Totals, Prince Edward Island.....	9,156	10,444	7,804	12,465
Nova Scotia—				
Principal.....	24,213	40,055	23,540	52,177
Interest.....	54,101	66,355	61,655	97,583
Totals, Nova Scotia.....	78,314	106,410	85,195	149,760
New Brunswick—				
Principal.....	..	120,673	76,251	61,905
Interest.....	..	50,845	82,654	110,099
Totals, New Brunswick.....	289,279	171,518	158,905	172,004
Ontario—				
Principal.....	..	1,759,521	1,912,616	2,508,522
Interest.....	..	1,688,238	1,553,131	1,951,880
Totals, Ontario.....	4,274,944	3,447,759	3,465,747	4,460,402
Manitoba—				
Principal.....	316,940	165,781	41,622	86,051
Interest.....	360,010	112,186	88,659	269,639
Totals, Manitoba.....	676,950	277,967	130,281	355,690
Saskatchewan—				
Principal.....	427,366	237,952	225,460	185,798
Interest.....	203,203	234,274	269,513	326,070
Totals, Saskatchewan.....	630,569	472,226	494,973	511,868
Alberta—				
Principal and interest past due (municipal).....	451,455	433,115	641,109	618,414
Principal and interest past due (schools).....	57,423	50,885	61,226	60,991
Totals, Alberta.....	508,878	484,000	702,335	679,405
British Columbia—				
Principal.....	..	..	..	280,955
Interest.....	..	..	..	260,443
Totals, British Columbia.....	789,033	448,114	539,763	541,398

CHAPTER XXIV.—NATIONAL ACCOUNTS AND RELATED STATISTICS

CONSPECTUS

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NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

Section 1.—National Accounts*

The national accounts, in summarizing the nation's economic transactions, make possible the study of interrelationships in the economic system as a whole. They are particularly important to governments concerned with problems of full employment, taxation and prices, and to businessmen concerned with programs of investment and marketing.

The main body of the national accounts provides a summary of production and consumption in terms of prices established in the market. Thus, it is necessary to keep in mind that the value of the nation's production may change because of price changes as well as changes in the volume of output. When the resources of the economy are fully employed the volume of goods and services produced can increase but slowly from one year to the next in response to population growth and additions to the country's real wealth, or as a result of more efficient utilization of existing resources. Consequently, a rapid rise in the value of output under conditions of full employment is explained mainly by price increases. However, when there are unemployed resources in the country, a substantial increase in the value of production of goods and services may occur from one year to the next if these resources are brought into use, even though prices remain stable.

Data are now available showing volume changes as well as price changes in gross national expenditure. Gross national expenditure is shown in constant dollars (i.e., in terms of average prices prevailing in the period 1935-39) in Table 3. Since the gross national expenditure equals the gross national product, these data also reflect volume changes in the production of goods and services as measured by the gross national product. For all other tables the data are expressed in current dollars, and year-to-year changes in these tables must be considered in relation to price changes over the period.

The tables presented here cover the more important aspects of the national income analysis. Tables 1 and 2 show the main aggregates of national income, gross national product, gross national expenditure, and their components; Table 3 shows gross national expenditure in constant dollars and other tables are included

* Prepared in the Research and Development Division, Dominion Bureau of Statistics.

to show the source and disposition of personal income, government revenue and expenditure, and personal expenditure on consumer goods and services. Further information on national accounts can be obtained by reference to D.B.S. bulletins on National Accounts.*

National Income.—Net national income at factor cost or, more briefly, national income, is the income currently earned by persons in productive pursuits, whether their services are rendered to business, to governments or directly to the consuming public. It includes the earnings of residents of Canada from the current year's production of goods and services, that is, the sum of salaries and wages, supplementary labour income (employer contributions to unemployment insurance, pension funds, Workmen's Compensation funds and income in kind, etc.), profits, interest, net rent and net income of agriculture and other unincorporated business.

Gross National Product.—Gross national product is the market value of all final goods and services produced in the year. It is equal to national income plus net indirect taxes (indirect taxes less subsidies), plus depreciation allowances and similar business costs.

Gross National Expenditure.—Gross national expenditure measures the same aggregate as gross national product, namely, the total production of final goods and services at market prices. However, gross national product is measured in terms of costs, whereas gross national expenditure is obtained by adding together all sales and adjusting them for imports and changes in inventories. Four broad types of sales can be distinguished: sales to persons, to governments, to business on capital account (gross domestic investment including changes in inventories), and to non-residents (exports). The total of these sales includes imports of goods and services but as the purpose is to measure only domestic production available for Canadian residents, imports of goods and services, including net payments of interest and dividends to non-residents, are deducted.

Personal Income.—Personal income is the sum of current receipts of income whether or not these receipts represent earnings from production. Thus, it includes (in addition to salaries and wages, net income of unincorporated business, interest and dividends and net rental income of persons) transfer payments from governments, such as family allowances, unemployment insurance benefits and war service gratuities. It does not include undistributed profits of corporations and other elements of the national income not paid out to persons.

Historical Perspective.—Between 1926 and 1951—slightly less than a generation—gross national product increased four fold in value. A substantial part of this apparent growth was the result of rising prices; however, it will be seen from Table 3 that the growth in physical production was, nevertheless, 136 p.c. The population of Canada in this period increased by 48 p.c. so that the per capita growth in physical product was close to 60 p.c., an indication of the growth in living standards and prosperity that occurred during this period. This increase is the

* *National Accounts, Income and Expenditure, 1926-1950 and National Accounts, Income and Expenditure, Revised Preliminary 1951.*

more remarkable in the light of the disastrous set-back suffered during the depression years and the more recent decline in the average hours worked weekly in industry. In 1933, at the depth of the depression, per capita real production registered a decline of one-third as compared with the relatively prosperous year of 1929.

The historical series reveal many other interesting features of the economy, including, among others: the relative stability of the portion of total income going to labour in the form of wages and salaries as opposed to the instability of farm and investment incomes (Table 4); the increasing significance of government spending in the economy as opposed to the declining importance of exports (Table 3); the relative changes in the proportion of government revenue represented by direct and indirect taxes (Table 6); and changing consumer preferences as revealed by the composition of personal expenditure (Table 8).

Current Perspective.—*Gross National Product and National Income.*—Gross national product in 1951 was estimated at \$21,200,000,000, a 17 p.c. increase over the 1950 total of \$18,100,000,000. A substantial part of this increase was due to the general increase in prices at which the total output of goods and services is valued. After having made allowance for these price changes, however, there remained an increase in total real output of over 5 p.c. Further comment is made below on the manner in which this increase in real output was absorbed by major groups such as consumers, governments and businesses (for investment purposes). It should be noted that the figure of 5 p.c. is based on recently developed statistical procedures and that, while it is believed sufficiently accurate for the analytical conclusions based upon it, it must be regarded as a preliminary statistic. The increase in total output was accompanied by a gain of almost 3 p.c. in the employed labour force. There was a continuation of the shift from agricultural to non-agricultural pursuits, so that the increase in the employed non-agricultural labour force was in excess of the over-all increase.

National income in 1951 was estimated at \$17,200,000,000, an increase of 18 p.c. over the preceding year. Wages, salaries and supplementary labour income, the largest component of national income, amounted to \$9,600,000,000 in 1951, a gain of 17 p.c. over 1950, while investment income, which consists of corporation profits, interest and net rental income received by persons, government investment income and a number of other items, showed an average increase of 18 p.c. over 1950. In the unincorporated business sector, there was a very large increase of 38 p.c. in accrued net income of farm operators from farm production. Approximately 25 p.c. of the total increase in volume output of gross national product is accounted for by agriculture. A large part of the increase in net income was due to a near-record wheat crop. It should be noted that adverse weather conditions resulted in a large amount of grain being left in the fields, and this addition to farm inventories was included with the figure of farm net income. On the other hand, net income of non-farm unincorporated business, which includes unincorporated retailers, unincorporated manufacturing establishments, professionals and unincorporated service establishments, increased by only 5 p.c.

1.—National Income and Gross National Product, Selected Years, 1926-51

(Millions of dollars)

Item	1926	1929	1933	1939	1944	1946	1950 ¹	1951 ¹
Wages, salaries and supplementary labour income.....	2,358	2,929	1,778	2,575	4,940	5,323	8,271	9,640
Military pay and allowances.....	7	8	8	32	1,068	340	137	201
Investment income.....	685	836	299	917	1,829	1,975	3,088	3,655
Net Income of Unincorporated Business—								
Accrued net income of farm operators from farm production....	619	408	74	385	1,185	1,112	1,547	2,138
Net income of non-farm unincorporated business.....	516	608	293	464	804	1,071	1,512	1,695
Net National Income at Factor Cost.....	4,185	4,789	2,452	4,373	9,826	9,821	14,555	17,229
Indirect taxes less subsidies.....	612	681	537	733	1,111	1,269	2,005	2,386
Depreciation allowances and similar business costs.....	558	709	547	610	957	903	1,607	1,763
Residual error of estimate.....	-61	-13	16	-9	60	33	-45	-137
Gross National Product at Market Prices.....	5,294	6,166	3,552	5,707	11,954	12,026	18,122	21,241 *

¹ Includes Newfoundland.

Gross National Expenditure.—Gross national expenditure indicates the manner in which the nation's output is absorbed. In 1951, 50 p.c. of the increase in total volume output was utilized by the Government sector, largely as a result of the growing defence program. The remainder was accounted for almost entirely by a continued high level of investment in durable physical assets. There was no increase in the real amount taken by consumers. A small increase occurred in the physical volume absorbed by inventory accumulation but this was partly offset by the change in the negative amount represented by the net foreign deficit.

The volume of personal expenditure failed to increase in 1951, since the over-all value increase of 10 p.c. was almost exactly matched by the price rise. Expenditure on durable goods declined significantly in physical terms, although in value terms 1951 expenditure was about equal to that of the previous year. Expenditure on goods and services by federal, provincial and municipal governments rose by \$797,000,000, or approximately 34 p.c., from \$2,323,000,000 in 1950 to \$3,120,000,000 in 1951. Most of this increase was accounted for by the rise in federal defence spending from \$493,000,000 in 1950 to \$1,160,000,000 in 1951, a gain of 135 p.c. The major components of gross domestic investment showed divergent movements in 1951. Investment in new housing decreased by about 3 p.c. in value and by about 16 p.c. in volume and average cost was estimated to be about 15 p.c. higher than in the previous year. Investment in new non-residential construction increased by about 18 p.c. in value, however, the increase in volume was only 6 p.c. Investment in new machinery and equipment showed a very large increase, amounting to 18 p.c. in physical volume, the result of heavy spending in basic industries and utilities. The large inventory accumulation of \$1,700,000,000 in 1951 consisted of farm inventory increases of \$400,000,000 and increases in business inventories, totalling \$1,300,000,000.

For the second year in succession, net foreign investment was negative. The over-all deficit, represented by the difference between 'exports of goods and services' and 'imports of goods and services' in Table 2, was even larger than that experienced in 1950. Despite the deficit, the Canadian dollar strengthened its position on the international market and exchange reserves remained at a high level.

2.—Gross National Expenditure, Selected Years, 1926-51

(Millions of dollars)

Item	1926	1929	1933	1939	1944	1946	1950 ¹	1951 ¹
Personal expenditure on consumer goods and services.....	3,687	4,393	2,887	3,904	6,187	7,977	11,862	13,062
Government expenditure on goods and services.....	521	682	526	735	5,022	1,832	2,323	3,120
Gross Domestic Investment—								
New residential construction....	212	247	76	185	225	371	801	778
New non-residential construction..	240	486	79	166	257	443	1,026	1,215
New machinery and equipment..	357	597	84	254	377	584	1,389	1,814
Change in inventories.....	88	61	-82	331	-46	519	1,005	1,650
Exports of goods and services.....	1,650	1,632	826	1,451	3,561	3,210	4,185	5,099
Deduct: Imports of goods and services.....	-1,522	-1,945	-828	-1,328	-3,569	-2,878	-4,514	-5,633
Residual error of estimate.....	+61	+13	-16	+9	-60	-32	+45	+136
Gross National Expenditure at Market Prices.....	5,294	6,166	3,552	5,707	11,954	12,026	18,122	21,241

¹ Includes Newfoundland.

3.—Gross National Expenditure in Constant (1935-39) Dollars, Selected Years, 1926-51

(Millions of dollars)

Item	1926	1929	1933	1939	1944	1946	1950 ¹	1951 ¹
Personal expenditure on consumer goods and services.....	3,055	3,685	3,055	3,820	5,030	6,189	6,833	6,828
Government expenditure on goods and services.....	487	629	529	742	4,001	1,484	1,369	1,647
Gross Domestic Investment—								
New residential construction....	197	214	84	180	150	225	343	289
New non-residential construction..	228	439	86	164	204	330	555	591
New machinery and equipment..	337	575	89	247	298	467	774	914
Change in inventories.....	119	48	-125	338	-77	226	394	545
Exports of goods and services.....	1,207	1,314	982	1,494	2,614	2,079	2,018	2,205
Deduct: Imports of goods and services.....	-1,134	-1,578	-911	-1,330	-2,450	-1,930	-2,118	-2,358
Sub-Total.....	4,496	5,326	3,789	5,655	9,770	9,070	10,168	10,661
Residual error of estimate.....	+52	+11	-17	+9	-49	-25	+26	+70
Gross National Expenditure in Constant Dollars.....	4,548	5,337	3,772	5,664	9,721	9,045	10,194	10,731

¹ Includes Newfoundland.

Personal Income, Personal Saving and Spending.—Personal income in 1951 amounted to \$15,818,000,000, an increase of over 17 p.c. as compared with 1950. The increase approximated that shown by important components such as wages and salaries, interest and dividends and net rental income of persons and the large increase in net income of farm operators also included in this figure. Direct personal tax collections rose sharply from \$735,000,000 in 1950 to \$1,016,000,000 in 1951, a gain of \$281,000,000, or 38 p.c. This increase is almost wholly accounted for at the federal level owing to higher levels of personal income and to the defence surcharge imposed in the Budget of April 1951. Personal expenditure amounted to \$13,100,000,000, 10 p.c. above 1950. The composition of personal expenditure is shown in Table 8 at p. 1086.

Subtracting personal taxes and personal expenditure from personal income, personal saving of \$1,740,000,000 is obtained for 1951. This represents the amount saved during the year, not the total accumulated savings of persons, which would be very much greater. Savings include not only liquid savings in the form of cash and government bonds but also net repayment of debt, increase in homeowner's equity and the reinvested earnings of farms and small businesses.

4.—Sources of Personal Income, Selected Years, 1926-51

(Millions of dollars)

Item	1926	1929	1933	1939	1944	1946	1950 ¹	1951 ¹
Wages, salaries and supplementary labour income.....	2,358	2,929	1,778	2,575	4,940	5,323	8,271	9,640
<i>Deduct:</i> Employer and employee contributions to social insurance and government pension funds...	-17	-27	-21	-35	-133	-149	-259	-316
Military pay and allowances.....	7	8	8	32	1,068	340	137	201
Net income received by farm operators from farm production.....	607	407	103	435	1,206	1,090	1,446	2,191
Net income of non-farm unincorporated business.....	516	608	293	464	804	1,071	1,512	1,595
Interest, dividends and net rental income of persons.....	528	616	471	602	836	957	1,290	1,454
Transfer payments (excluding interest)—								
From governments.....	74	93	181	229	259	1,106	1,012	1,001
Charitable contributions from corporations.....	4	5	2	6	11	12	25	27
Net bad debt losses of corporations.....	15	18	28	12	11	11	23	25
Totals, Personal Income.....	4,092	4,657	2,843	4,320	9,002	9,761	13,457	15,818

¹ Includes Newfoundland.

5.—Disposition of Personal Income, Selected Years, 1926-51

(Millions of dollars)

Item	1926	1929	1933	1939	1944	1946	1950 ¹	1951 ¹
Personal Direct Taxes—								
Income taxes.....	22	34	38	62	772	711	612	890
Succession duties.....	16	16	13	28	39	54	63	63
Miscellaneous taxes.....	15	18	18	22	27	31	60	63
Purchases of goods and services....	3,687	4,393	2,887	3,904	6,187	7,977	11,862	13,062
Personal saving.....	352	196	-113	304	1,977	988	860	1,740
Totals, Personal Income.....	4,092	4,657	2,843	4,320	9,002	9,761	13,457	15,818

¹ Includes Newfoundland.**6.—Federal, Provincial and Municipal Government Revenue and Surplus or Deficit, Selected Years, 1926-51**

(Millions of dollars)

Item	1926	1929	1933	1939	1944	1946	1950 ¹	1951 ¹
Direct Taxes: Persons—								
Income taxes.....	22	34	38	62	772	711	612	890
Succession duties.....	16	16	13	28	39	54	63	63
Miscellaneous taxes.....	15	18	18	22	27	31	60	63
Direct Taxes: Corporations—								
Income and excess profits taxes..	34	48	37	115	593	654	1,023	1,444
Withholding taxes.....	—	—	5	10	27	29	54	56
Indirect taxes.....	614	686	545	716	1,378	1,505	2,069	2,519
Investment Income—								
Interest.....	63	74	75	71	105	120	154	175
Profits of government business enterprises.....	25	29	-37	19	222	243	240	239
Employer and employee contributions to social insurance and government pension funds.....	17	27	21	35	133	149	259	316
Deficit or surplus (on transactions relating to the national accounts).	-56	-9	+174	+41	+2,566	+133	-693	-1,064
Totals, Revenue.....	750	923	889	1,119	5,867	3,629	3,841	4,701

¹ Includes Newfoundland.**7.—Federal, Provincial and Municipal Government Expenditure, Selected Years, 1926-51**

(Millions of dollars)

Item	1926	1929	1933	1939	1944	1946	1950 ¹	1951 ¹
Purchase of goods and services....	521	682	526	735	5,022	1,832	2,323	3,120
Transfer Payments—								
Interest.....	153	143	174	172	319	455	442	447
Other.....	74	93	181	229	259	1,106	1,012	1,001
Subsidies.....	2	5	8	-17	267	236	64	133
Totals, Expenditure.....	750	923	889	1,119	5,867	3,629	3,841	4,701

¹ Includes Newfoundland.

8.—Personal Expenditure on Consumer Goods and Services, Selected Years, 1930-51

(Millions of dollars)

Item	1930	1939	1944	1946	1950 ¹	1951 ¹
Food.....	1,068	919	1,769	2,085	3,040	3,436
Tobacco and alcoholic beverages.....	277	281	624	846	1,072	1,158
Clothing and personal furnishings.....	570	490	966	1,191	1,553	1,647
Shelter.....	692	629	807	866	1,354	1,517
Household operation.....	551	522	660	935	1,492	1,547
Transportation.....	374	392	465	771	1,441	1,546
Personal and medical care and death expenses.....	273	257	369	478	748	826
Miscellaneous.....	399	414	527	805	1,162	1,385
Totals.....	4,204	3,904	6,187	7,977	11,862	13,062
Durable goods.....	308	292	296	590	1,320	1,318
Non-durable goods.....	2,363	2,210	3,928	5,073	7,115	7,864
Services.....	1,533	1,402	1,963	2,314	3,427	3,880

¹ Includes Newfoundland.

Section 2.—Canada's International Investment Position*

A large balance of Canadian indebtedness to other countries has always been characteristic of Canada's international investment position. Much of the development of Canada has been financed by investments of capital from other countries, particularly in earlier decades. This balance of indebtedness has been reduced from the levels immediately before World War II which, in turn, were lower than the earlier peak period around 1930. Net indebtedness to other countries in 1950 was about \$4,100,000,000 compared with more than \$6,000,000,000 in 1930. The 1950 figure was higher than that for 1949 at \$3,730,000,000, and there was also an increase in 1951.

British and Foreign Investments in Canada.—The relative importance of British and United States capital invested in Canada has changed greatly in recent decades. British capital constituted the largest part of the external capital invested in Canada before World War I but United States investments underwent a rapid development during and after that War. By 1926, the first year for which official estimates are available, United States investments in Canada had a value of \$3,196,000,000 compared with British investments of \$2,636,000,000. During the 1930's, reductions occurred in the amount of external capital invested in Canada.

Further growth in United States investments in Canada took place during World War II and, by the end of the War, these investments had reached a new peak, whereas British investments in Canada were sharply reduced by repatriations of securities. As a result of these divergent trends in British and United States investments, total non-resident investments in Canada increased only moderately during World War II.

* Prepared in the Balance of Payments Section, International Trade Division, Dominion Bureau of Statistics. A more extended review appears in D.B.S. report, *Canada's International Investment Position, Selected Years 1926 to 1949*, and statistics for more recent years in D.B.S. report, *The Canadian Balance of International Payments, 1951, and Foreign Capital Invested in Canada*.

In the post-war years there was a substantial increase in the value of United States capital invested in Canada. The largest increases occurred in the years following 1948, particularly in 1950 and 1951 when there were substantial net inflows of United States capital. The increase in the value of United States investments in Canada in the six years 1946 to 1951 amounted to about \$2,250,000,000. The growth in direct investments in Canadian branches, subsidiaries and controlled companies accounted for approximately \$1,600,000,000 of this increase and increased holdings of government and municipal bonds for about \$450,000,000. The accelerated rate in the later post-war years was due to the development of petroleum production and other resources. Throughout the period, reinvested earnings accounted for more than one-half the increased investment. Portfolio holdings of government and other securities increased each year, except for 1947. There were particularly large increases in holdings of Government of Canada issues in 1950 through a demand for outstanding domestic issues, and in 1951 in holdings of provincial and municipal bond sales in the United States. Direct investments in companies in Canada controlled in the United States made up the largest part of United States investments. In 1950, such investments were valued at \$3,442,000,000 in 2,568 concerns. By the end of 1951 the value of this group of investments had risen to \$3,900,000,000 out of total investments of United States capital in Canada of approximately \$7,235,000,000.

At the end of 1951, British investments of \$1,772,000,000 were only slightly higher in value than at the end of World War II. A considerable increase in these investments occurred in 1950 and 1951 in the direct investment group, and the totals since 1949 also increased significantly by the inclusion of British investments in Newfoundland. The principal change in the post-war period in investments of other countries in Canada occurred in 1951, when a substantial increase took place, mainly through larger portfolio holdings of Canadian stocks.

Canadian capital has been the principal source of financing for Canadian development in the past 20 years or more. Investment, which was subnormal during the 1930's, showed notable expansion in certain fields during World War II and rose to peak levels in the post-war years. Even in 1950 and 1951, when capital inflows were very substantial, the proportion of investment financed by non-resident capital was minor. In those years the net contribution by non-residents and foreign controlled companies to the savings used for all types of investment in Canada was only about one-seventh of the total.

Thus, the ratio of investments of external capital, in relation to total investments of capital in Canada, has been declining for some years. It is difficult to express this relationship in terms of any simple ratio, however, because of the variety of types of investment which must be compared. Important changes have taken place also in the relative positions of different types of investment. Non-resident holdings of Canadian bonds constitute a much smaller proportion of the outstanding funded debt of Canadian governments and corporations than before World War II. The external holdings of Canadian bonds represented only about 15 p.c. of the total Canadian funded debt at the end of 1951 compared with about one-third of the bonds outstanding in 1939. The most conspicuous feature in this change in ownership has been the great increase in Canadian holdings. As a result of wartime financing, Canadian holdings of Canadian bonds rose from about \$6,500,000,000 in 1939 to \$19,200,000,000 in 1951. Non-resident holdings did not change much in total between these two years and a decline in British holdings, through wartime repatriation, was offset by a rise in United States holdings in the past few years.

Non-resident ownership of Canadian industry, mines, railways and public utilities was estimated in 1950 to be about 32 p.c. of the total capital invested, a percentage less than the corresponding ratio at the beginning of World War II. The ratio of non-resident ownership in Canadian manufacturing companies in 1949 was estimated at about 44 p.c. The percentages for the different groups of the manufacturing industry varied considerably but was greatest in the non-ferrous metal industry, being close to 75 p.c., as compared with about 25 p.c. in the textile industry; in the chemical industry it was more than 50 p.c. and in the vegetable products, animal products, wood and paper products, iron and its products and the non-metallic minerals groups the ratio was between 33 p.c. and 50 p.c. Furthermore, in some subdivisions of these industries, non-resident ownership and control were predominant even though only the minor parts of the groups, when taken as a whole, were owned abroad. Other important industrial subdivisions were mainly Canadian owned and controlled, such as the primary iron and steel and the cotton textile industries.

Non-resident ownership of railways was large, being 43 p.c. in 1949. The mining and smelting field was also developed to an important extent by external capital, the ratio of non-resident ownership being 42 p.c. Some major units in this field were non-resident controlled.

In financial institutions, non-resident ownership was substantial but non-resident control was largely limited to branches of foreign insurance companies; Canadian banks, trust companies and most Canadian insurance companies were mainly Canadian controlled.

External capital has occupied a very important role in the development of the petroleum industry, United States investment in all branches of the industry amounting to about 50 p.c. of the total at the end of 1951, as is shown in the following statement:—

ESTIMATED BOOK VALUE OF INVESTMENT IN CANADA IN ALL PETROLEUM COMPANIES
(exploration, development, refining, transportation and merchandising)

CLASSIFIED BY COUNTRY OF CONTROL AND COUNTRY OF OWNERSHIP

(Millions of dollars)

<i>Dec. 31, 1951</i>	<i>Investment of Residents of</i>			
	<i>Canada</i>	<i>United States</i>	<i>United Kingdom and Other Countries</i>	<i>Total</i>
Investment in Companies—				
Controlled in Canada.....	381	80	—	461
Controlled in United States.....	197	556	6	759
Controlled in United Kingdom and other countries.....	—	—	5	5
TOTALS.....	578	636	11	1,225
<i>Dec. 31, 1945</i>				
Investment in Companies—				
Controlled in Canada.....	115	7	1	123
Controlled in United States.....	57	108	6	171
Controlled in United Kingdom and other countries.....	—	—	2	2
TOTALS.....	172	115	9	296

From 1946 to 1951, capital inflow from the United States for petroleum investment amounted to about \$532,000,000, or over 33 p.c. of the net capital movement from that country to Canada. The book value of United States ownership in the

industry, which reflects profits and losses and accounting adjustments in addition to capital movements, rose from \$115,000,000 to \$636,000,000, or from 39 p.c. to 52 p.c. of the aggregate book value of the industry in Canada. United States investment in United States controlled companies in Canada was valued at \$556,000,000 or 45 p.c. of the industry at the end of 1951.

9.—Estimated British and Foreign Capital Invested in Canada, by Types of Investment, as at Dec. 31, 1933, 1939, 1946 and 1948-50

Type of Investment	1933	1939	1946	1948	1949	1950
Government Securities—	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Federal.....	751.9	823.0	750.0	823.0	975.0	1,141.0
Provincial.....	571.7	536.0	594.0	528.0	534.0	565.0
Municipal.....	394.4	344.0	267.0	248.0	246.0	256.0
Totals, Government Securities.....	1,718.0	1,703.0	1,611.0	1,599.0	1,755.0	1,962.0
Public Utilities—						
Railways.....	2,244.7	1,870.6	1,583.0	1,504.0	1,445.0	1,456.0
Other.....	625.4	549.4	557.0	468.0	494.0	543.0
Totals, Public Utilities.....	2,870.1	2,420.0	2,140.0	1,972.0	1,939.0	1,999.0
Manufacturing.....	1,421.6	1,445.2	1,895.0	2,317.0	2,539.0	2,763.0
Mining and smelting.....	338.5	329.1	386.0	424.0	494.0	628.0
Merchandising.....	191.5	189.3	238.0	262.0	279.0	310.0
Financial institutions.....	479.6	472.7	557.0	541.0	548.0	566.0
Other enterprises.....	75.2	69.0	69.0	78.0	83.0	98.0
Miscellaneous assets.....	270.0	285.0	282.0	298.0	302.0	320.0
Totals, Investment.....	7,364.5	6,913.3	7,178.0	7,491.0	7,939.0	8,646.0
British ¹	2,682.8	2,475.9	1,668.0	1,593.0	1,694.0	1,723.0
United States ²	4,491.7	4,151.4	5,157.0	5,566.0	5,905.0	6,565.0
Other countries.....	190.0	286.0	353.0	332.0	340.0	358.0

¹ Includes some investments held in the United Kingdom for residents of other countries.

² Includes some investments held in the United States for residents of other countries.

10.—Estimated British and Foreign Capital Invested in Canada, by Types of Investment, Classified by Estimated Distribution of Ownership, as at Dec. 31, 1950

NOTE.—Common and preference stocks are at book values as shown in the balance sheets of the issuing companies; bonds and debentures are valued at par; and liabilities in foreign currencies are converted into Canadian dollars at the par of exchange.

Type of Investment	Estimated Distribution of Ownership			Total Investments of Non-Residents
	British ¹	United States ¹	Other Countries	
	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Government Securities—				
Federal.....	82	1,009	50	1,141
Provincial.....	39	625	1	565
Municipal.....	42	212	2	256
Totals, Government Securities.....	163	1,746	53	1,962
Public Utilities—				
Railways.....	707	685	64	1,456
Other.....	65	448	30	543
Totals, Public Utilities.....	772	1,133	94	1,999
Manufacturing.....	444	2,269	50	2,763
Mining and smelting.....	55	546	27	628
Merchandising.....	69	231	10	310
Financial institutions.....	147	362	57	566
Other enterprises.....	8	88	2	98
Miscellaneous assets.....	65	190	65	320
Totals, Investments.....	1,723	6,565	358	8,646

¹ Includes some investments held in the United Kingdom and the United States for residents of other countries.

Canadian Assets Abroad.—Canada's external assets have changed greatly in size and composition in recent years. The total value, including holdings of gold and liquid reserves in foreign currencies, rose from \$1,876,000,000 in 1939 to \$5,454,000,000 at the end of 1950. The principal factor in this increase was the extension by the Federal Government of loans and export credits to the United Kingdom and other countries. At the end of 1950, Canadian Government credits outstanding totalled \$1,990,000,000. Included in this total was about \$256,000,000 outstanding on the 1942 loan to the United Kingdom, \$1,185,000,000 drawn on the 1946 loan to the United Kingdom and \$535,000,000 of post-war export credits and advances. In addition, at the end of 1950, official liquid reserves, including gold and official United States dollar balances, aggregated about \$1,876,000,000 and these reserves were higher at that date than in any earlier year. In addition, Canada had subscribed in 1946 and 1947 to the capital of the International Bank and the International Monetary Fund and by the end of 1951 such subscriptions amounted to \$70,900,000 and \$322,500,000, respectively. A small part of the subscription to the Bank was in the form of convertible exchange and \$75,000,000 of the subscription to the Fund was in gold. The remainder of both subscriptions was made in the form of demand notes of the Federal Government or in Canadian funds.

Besides the officially owned assets referred to above, there were the privately owned investments in the form of foreign securities and property owned by Canadian companies and individuals. In 1939, these privately owned assets constituted most of the total value of Canadian assets abroad, whereas, since the end of World War II they amounted to only a minor part of the total, chiefly because of the sharp rise in officially owned assets. Total privately owned portfolio investments abroad declined in value since 1939 because of the liquidations of Canadian holdings of United States securities. Portfolio holdings of foreign securities owned in Canada were reduced from \$719,000,000 at the end of 1939 to \$598,000,000 at the end of 1950. This decline was less than the total sales of these securities by private investors during the period, as there was a considerable increase in the book value of holdings of United States stocks. Appreciable gains occurred in Canadian direct investments in businesses outside Canada which had a value of \$990,000,000 at the end of 1950 compared with \$671,000,000 at the end of 1939. By the end of 1951, the value of this group of investments had risen to well over \$1,100,000,000.

11.—Canadian Assets Abroad, 1939, 1946 and 1948-50

NOTE.—Excludes investments of insurance companies.

Assets	1939	1946	1948	1949	1950
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Direct investments in businesses outside Canada....	671	772	788	904	990
Portfolio holdings of foreign securities.....	719	551	605	638	528
Government credits.....	31	1,362	1,878	2,000	1,990
Official balances abroad and gold.....	455	1,251	1,006	1,232	1,876
Totals, Canadian Assets Abroad.....	1,876	3,936	4,277	4,774	5,454

12.—Estimated Canadian Investments Abroad, as at Dec. 31, 1950

NOTE.—Excludes investments of insurance companies, banks, government credits, and liquid reserves. Holdings of stocks are at book values as shown in the books of issuing companies; holdings of bonds are shown at par values. Foreign currencies were converted into Canadian dollars at current market rates.

Location of Investment	Direct Investments	Portfolio Investments			Total Investments
		Stocks	Bonds	Total	
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
United States.....	760	298	91	389	1,149
United Kingdom.....	64	19	18	37	101
Other Commonwealth countries.....	86	6	8	14	100
Other foreign countries.....	80	125	33	158	238
Totals.....	990	448	150	598	1,588

The privately owned Canadian investments abroad are chiefly in the United States, the total value of investments in that country at the end of 1950 being \$1,149,000,000. Investments in other foreign countries in 1950, chiefly in Latin America, were \$238,000,000, while investments in the United Kingdom were \$101,000,000, and in other Commonwealth countries \$100,000,000. These figures exclude the investments abroad of Canadian insurance companies and banks, as well as the official assets referred to in Table 12, and certain small amounts of miscellaneous investments that were difficult to evaluate.

Section 3.—Corporation Profits and Income to Shareholders

Estimates of corporation profits presented in this Section cover all Canadian corporations. The figures for the years 1944 to 1950 are based on the reports, *Taxation Statistics*, published by the Taxation Division, Department of National Revenue, Ottawa. Prior to 1944, corporation financial statistics were made the subject of a comprehensive study in the Department of National Revenue.

Profits of Canadian corporations are shown in Table 13 for selected years 1926-51. From a high of \$530,000,000 in 1929, they dropped to \$17,000,000 in 1932 but, with the exception of a decline in 1938, rose steadily from 1932 to 1942, the wartime peak. From 1944 to 1948 corporation profits showed a continuous increase and after a slight decline in 1949 they rose to \$2,850,000,000 in 1951.

During the period 1926 to 1939, tax liabilities were much more stable than profits, ranging from a low of \$32,000,000 in 1932 to a high of \$115,000,000 in 1939. After the outbreak of war, tax rates rose sharply, largely owing to the imposition of the excess profits tax, and ranged from 40 p.c. to 50 p.c. of profits during the war period. In 1948, tax liabilities were 35 p.c. of profits, but increases in the next three years brought the tax rate up to over 50 p.c. in 1950, a percentage about the same as the wartime high. Since profits in 1951 were well above the level of any previous year, liabilities in 1951 of \$1,444,000,000 were \$423,000,000 more than in 1950 and \$713,000,000 over those of 1949.

Dividends paid out by corporations (excluding dividends paid to other corporations) follow a more even course than profits or taxes. Thus, in 1932, when corporation profits after taxes were — \$15,000,000, dividends paid amounted to \$157,000,000; while in 1951 profits after taxes were \$1,406,000,000 and dividends paid were \$696,000,000.

Undistributed corporation profits reached a peak in 1948 of \$788,000,000 and were lower in the three following years as a result of higher taxes and larger dividend payments. The low point of the series was reached in 1932 when corporations paid out in taxes and dividends \$172,000,000 more than they earned in profits.

Analysis by Industries.—Detailed data on profits by industries are available only for the years since 1944. Corporation profits as shown in Table 14 do not agree with those in the national accounts since the national accounts figures include depletion charges and charitable donations. Adjustments are made for renegotiation of war contracts and for conversion to a calendar-year basis in Table 14 and it should be noted that federal income taxes only are deducted from profits in arriving at profits after taxes. Provincial taxes were not significant in amount in the years 1944 to 1946 but, beginning with 1947, they were levied at the rate of 7 p.c. of profits in Ontario and Quebec and at 5 p.c. in the other provinces. Profits of Newfoundland corporations are included for 1950 only.

Between 1949 and 1950, profits of all corporations before taxes increased 28.7 p.c. Of the 34 sub-groups listed in the table, only five showed decreases. The most significant increases were in the other metal mining, pulp and paper, wood and wood products, petroleum products, rubber, machinery, chemicals, paints and drugs; automobiles, transportation communication and storage, wholesale trade and other financial institutions groups. The most significant declines were in transportation equipment except automobiles, and the chartered banks and insurance companies groups.

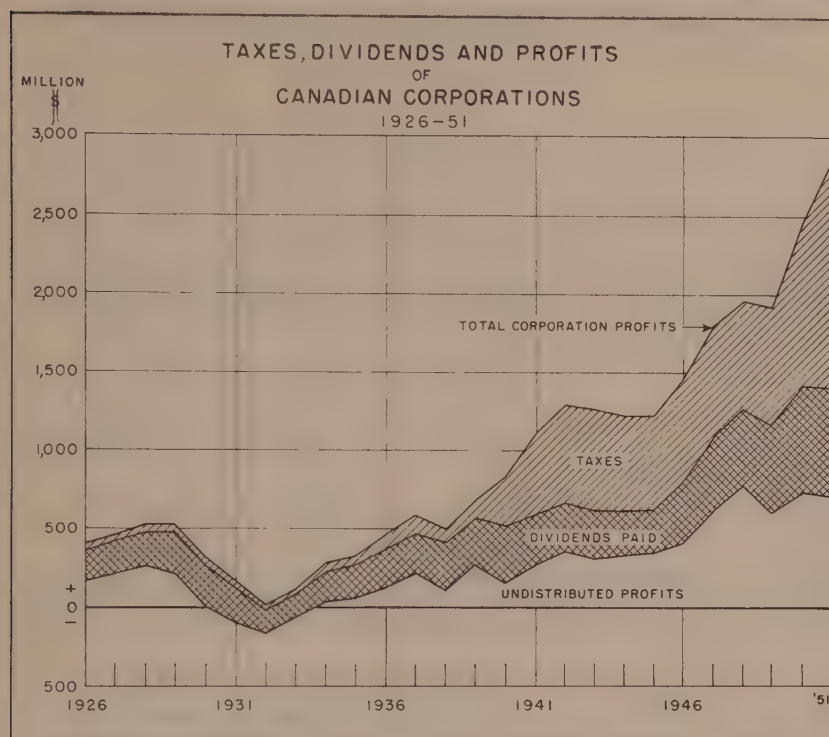
The structure of profits after taxes is very similar to that before taxes, since the rate increased only slightly between 1949 and 1950.

13.—Profits, Taxes and Dividends of Canadian Corporations, Selected Years, 1926-51

(Millions of dollars)

Item	1926	1929	1932	1933	1939	1942	1944	1946	1949	1950	1951
Corporation profits before taxes ¹	403	530	17	128	689	1,292	1,221	1,455	1,906	2,450	2,850
Deduct: income and excess profits taxes.....	34	48	32	37	115	629	598	654	731	1,023 ²	1,444 ²
Corporation profits after taxes..	369	482	-15	91	574	663	623	801	1,175	1,427	1,406
Deduct: dividends paid and charitable donations.....	190	271	157	168	302	308	282	390	568	681	696
Undistributed corporation profits.....	179	211	-172	-77	272	355	341	411	607	746	710

¹ Includes corporate taxable income, depletion charges and charitable donations, and are adjusted for corporate losses, renegotiation of war contracts and conversion to a calendar-year basis.
² Includes elective tax on undistributed income of \$54,000,000 in 1950 and \$48,000,000 in 1951.



14.—Corporation Profits, by Industries, Before and After Federal Income Taxes, 1946 and 1948-50

NOTE.—Figures are for the company fiscal years ended in the calendar years 1946 and 1948-50.
Source: *Taxation Statistics*, published annually by the Taxation Division, Department of National Revenue, Ottawa.

Industry	Net Income Before Taxes				Net Income After Federal Income Taxes			
	1946	1948	1949	1950	1946	1948	1949	1950
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Agriculture.....	2.2	2.6	2.1	1.7	0.8	1.5	1.2	0.9
Fishing.....	1.3	1.0	1.0	1.3	0.8	0.6	0.6	0.9
Forestry.....	3.1	9.8	4.0	12.7	1.2	6.5	2.4	8.4
Gold mining.....	16.2	13.8	11.6	13.6	8.2	8.9	7.4	8.7
Other metal mining.....	54.0	106.4	94.8	125.8	28.7	73.7	63.6	82.7
Other mining.....	9.4	13.7	14.9	19.1	4.7	7.6	8.8	10.9
Animal food products.....	14.5	25.2	15.2	23.8	8.2	16.9	10.3	15.8
Vegetable food products.....	46.9	67.4	60.7	61.4	24.9	45.1	40.3	39.8
Alcoholic beverages.....	69.5	58.8	59.3	64.1	32.2	39.8	40.2	42.5
Tobacco.....	11.6	13.6	13.2	15.5	6.6	9.6	8.9	10.1
Textile and textile products.....	67.8	92.7	81.2	81.2	35.7	63.0	54.4	53.4
Wood and wood products.....	37.8	77.5	47.3	85.3	19.1	51.4	31.1	57.0
Pulp and paper.....	138.3	213.9	188.5	271.0	71.4	147.1	126.0	178.1
Chemicals, paints and drugs.....	57.1	70.4	63.6	87.1	29.9	49.0	42.3	57.6
Petroleum products.....	41.5	38.2	29.6	64.2	26.5	27.8	20.5	42.5
Rubber.....	12.4	10.8	4.6	20.3	6.5	7.5	2.8	13.4
Leather.....	12.8	9.3	6.6	6.4	6.5	6.0	4.3	4.2
Non-metallie mineral products.....	21.5	33.3	38.0	51.4	10.9	22.8	25.6	33.8
Iron and steel products.....	37.3	59.7	58.8	66.9	19.7	41.3	39.9	44.4
Primary iron and steel.....	18.0	41.8	50.1	60.1	10.0	29.0	33.8	39.6
Non-ferrous smelting and refining and products.....	27.8	51.4	53.0	70.4	15.4	35.7	35.5	46.5

14.—Corporation Profits, by Industries, Before and After Federal Income Taxes, 1946 and 1948-50—concluded

Industry	Net Income Before Taxes				Net Income After Federal Income Taxes			
	1946	1948	1949	1950	1946	1948	1949	1950
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Machinery.....	61.1	128.4	131.4	160.1	30.1	88.1	87.4	105.9
Transportation equipment except automobiles.....	20.2	18.0	18.4	11.6	9.0	12.0	12.6	7.3
Automobiles.....	10.2	44.3	68.3	94.0	5.3	32.1	45.9	61.6
Miscellaneous manufactured products.....	15.1	14.0	13.5	16.4	7.2	9.2	9.0	11.0
Construction.....	11.4	35.0	41.1	50.9	5.2	23.7	28.1	34.7
Heat, light and power.....	35.7	33.5	36.4	42.7	20.2	23.3	24.6	28.1
Transportation, communication and storage.....	89.6	83.8	68.6	114.1	47.8	54.8	44.2	74.8
Other public utilities.....	3.0	5.0	3.4	3.6	1.6	5.5	2.3	2.4
Wholesale trade.....	119.9	156.4	150.5	203.3	60.6	105.9	102.9	137.8
Retail trade.....	148.8	173.9	163.2	176.4	68.6	115.1	113.8	120.8
Services.....	38.0	41.1	41.8	41.3	19.7	27.1	29.1	28.4
Chartered banks and insurance companies.....	28.8	42.8	60.6	51.9	13.5	31.0	42.9	34.0
Other financial institutions.....	51.6	63.9	57.2	86.2	31.1	46.8	39.7	59.7
Companies not classified.....	0.3	0.3	—	0.1	0.1	0.1	—	—
Total Profits, All Corporations¹..	1,334.7	1,851.7	1,752.5	2,255.9	685.9	1,265.5	1,182.4	1,497.7
Adjustment to National Income Estimate ¹	120.3	103.3	153.5	194.1	115.1	4.5	-7.4	-70.7
Total Profits, National Income Estimates.....	1,455.0	1,955.0	1,906.0	2,450.0	801.0	1,270.0	1,175.0	1,427.0

¹ Total profits of all corporations shown here differ from those presented in Table 13 which are used for national income purposes—see text at p. 1092.

Section 4.—Federal Incorporation of Companies

Statistics of companies incorporated under the Companies Act are given in Table 15.

15.—Numbers and Capitalizations of Companies Incorporated under the Dominion Companies Act and Amendments, Years Ended Mar. 31, 1942-51

NOTE.—Statistics for the years 1900-25 will be found at p. 1061 of the 1938 Year Book and for 1926-41 at p. 934 of the 1942 edition. Capitalization includes consideration of the amounts of capital received on the issue of shares without nominal or par value.

Year	New Companies		Old Companies with—				Gross Increase in Capitalization	Net Increase in Capitalization
			Increased Capitalization		Decreased Capitalization			
	No.	Capitalization	No.	Amount	No.	Amount		
		\$		\$		\$		\$
1942.....	211	50,606,141	40	15,760,300	39	54,964,907	66,366,441	11,401,534
1943.....	205	51,630,000	35	56,198,739	29	7,728,436	107,828,739	100,100,303
1944.....	217	53,462,000	59	31,351,380	52	18,204,490	84,813,380	66,608,890
1945.....	412	56,719,900	51	108,411,400	20	10,680,250	165,131,300	154,451,050
1946.....	649	187,588,775	88	129,163,798	32	15,407,127	316,752,573	301,345,446
1947.....	910	206,547,650	121	147,084,194	60	157,365,948	353,631,844	196,265,896
1948.....	717	176,891,600	109	109,305,261	54	68,941,194	286,196,861	217,255,667
1949.....	669	163,407,950	92	115,233,095	61	115,029,743	278,641,045	163,611,302
1950.....	690	132,426,495	71	120,432,957	57	34,042,682	252,859,452	218,816,770
1951.....	611	329,117,200	367	298,975,315	55	60,809,421	628,092,515	567,283,094

During the year ended Mar. 31, 1951, 148 Supplementary Letters Patent were granted for variation of corporate powers, changes of name, confirmation of compromises or arrangements with shareholders and for various other purposes. In addition to the companies with share capital, 29 corporations without share capital were granted Letters Patent under Part II of The Companies Act, 1934.

CHAPTER XXV.—CURRENCY AND BANKING; MISCELLANEOUS COMMERCIAL FINANCE

CONSPECTUS

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NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

PART I.—CURRENCY AND BANKING

A historical sketch of currency and banking in Canada, tracing certain features of the central banking system that finally led up to the establishment of the Bank of Canada appears at pp. 900-905 of the 1938 Year Book. In chronological order these were:—

(1) *Central Note Issue*, permanently established with the issue of Dominion notes under legislation of 1868.

(2) *The Canadian Bankers' Association*, established in 1900 and designed to effect greater co-operation among the banks in the issue of notes, in credit control and in various aspects of bank activities.

(3) *The Central Gold Reserves*, established by the Bank Act of 1913.

(4) *Rediscount Facilities*, originated as a war measure by the Finance Act of 1914, and made a permanent feature of the system by the Finance Act of 1923. This Act empowers the Minister of Finance to issue Dominion notes to the banks on deposit by them of approved securities, thus providing the banks with a means of increasing their legal tender cash reserves at will.

Section 1.—The Bank of Canada

The Bank of Canada Act and Its Amendments.—The Bank of Canada was incorporated in 1934 and commenced operations on Mar. 11, 1935. An account of the capital structure of the Bank and its transition from a privately owned institution to one wholly government owned is given at p. 800 of the 1941 Year Book.

The Bank is authorized to pay cumulative dividends of $4\frac{1}{2}$ p.c. per annum from its profits after making such provision as the Board thinks proper for bad and doubtful debts, depreciation in assets, pension funds, and all such matters as are properly provided for by banks. The Act provided that the remainder of the

profits were to be paid, in specified proportions, into the Rest Fund of the Bank (so long as it remained less than twice the paid-up capital) and the Consolidated Revenue Fund. Since 1944, when the transfer brought the Rest Fund up to slightly more than twice the paid-up capital, the whole of the remaining profits have been paid into the Consolidated Revenue Fund.

The Bank may buy and sell securities of the Government of Canada and Provincial Governments without restriction if of a maturity not exceeding two years, and in limited amounts if of longer maturity; short-term securities of the Government of Canada and Provincial Governments may be rediscounted. The Bank may buy and sell short-term securities of Commonwealth countries, the United States or France without restriction if maturing within six months, and such securities having a maturity exceeding six months in limited amounts. The Bank may buy and sell certain classes of commercial paper of limited currency and, if endorsed by a chartered bank, may rediscount such commercial paper. Advances for six-month periods may be made to chartered banks, Quebec Savings Banks, the Government of Canada or any Provincial Government against certain classes of collateral, and advances of specified duration may be made to the Government of Canada or any Provincial Government in amounts not exceeding a fixed proportion of such Government's revenue. The Bank may accept deposits that do not bear interest* from the Government of Canada or Provincial Governments, or from any chartered bank or any bank incorporated under the Quebec Savings Banks' Act. The Bank may buy and sell gold, silver, nickel and bronze coin, and gold and silver bullion, and may also deal in foreign exchange.

The provisions regarding the note issue of the Bank of Canada are dealt with at p. 1100.

The Bank of Canada Act (24-25 Geo. V, c. 43, as amended) provides that the Bank shall maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada. Under the terms of the Exchange Fund Order, 1940, authorizing the transfer of the Bank's gold holdings to the Foreign Exchange Control Board, the minimum gold reserve requirement was temporarily suspended; this suspension was continued under the Foreign Exchange Control Act, 1946, and subsequently to July 4, 1952, under the Currency, Mint and Exchange Act (1 Eliz. II c. 40, s. 25). The reserve, in addition to gold, may include silver bullion; balances in pounds sterling in the Bank of England, in United States dollars in the Federal Reserve Bank of New York, and in gold currencies in central banks in gold-standard countries or in the Bank for International Settlements; treasury bills of the United Kingdom or the United States of America having a maturity not exceeding three months; and bills of exchange having a maturity not exceeding 90 days, payable at London or New York, or in a gold-standard country, less any liabilities of the Bank payable in the currency of the United Kingdom, the United States of America or a gold-standard country. In accordance with the terms of the Foreign Exchange Acquisition Order, 1940, the Bank of Canada transferred foreign exchange with a Canadian dollar value of \$27,734,444 to the Foreign Exchange Control Board.

The chartered banks are required to maintain a reserve of not less than 5 p.c. of their deposit liabilities, payable in Canadian dollars, in the form of deposits with, and notes of, the Bank of Canada.

The Bank acts as the fiscal agent of Canada without charge and may, by agreement, act as banker or fiscal agent of any province. The Bank does not accept deposits from individuals and does not compete with the chartered banks in commercial banking fields.

Head office of the Bank is at Ottawa and it has an agency in each province, in the cities of St. John's, Charlottetown, Halifax, Saint John, Montreal, Toronto, Winnipeg, Regina, Calgary and Vancouver.

The Governor of the Bank is its chief executive officer and Chairman of the Board of Directors; he is assisted by a Deputy Governor and an Assistant Deputy Governor. The first appointments were made by the Government and subsequent appointments are to be made by the Board of Directors subject to the approval of the Governor in Council.

At the first meeting of the shareholders on Jan. 23, 1935, seven directors were elected with terms as follows: one director, until the third annual general meeting (1938); two, until the fourth (1939); two, until the fifth (1940); and two, until the sixth annual general meeting (1941). Former directors continued in office when the Government took over the management of the Bank but directors are now appointed by the Minister of Finance, with the approval of the Governor in Council, for terms of three years. In 1951 there were twelve directors. In the transaction of the business of the Bank, each director has one vote.

There is also an Executive Committee of the Board of Directors consisting of the Governor, Deputy Governor and one member of the Board. Meeting once a week, this Committee has the same powers as the Board but every decision is submitted to the Board of Directors at its next meeting. The Board must meet at least four times a year. The Deputy Minister of Finance is an *ex officio* member of the Board of Directors and of the Executive Committee, but is without vote.

The Governor of the Bank or, in his absence, the Deputy Governor, has the power to veto any action or decision of the Board of Directors or the Executive Committee, subject to confirmation or disallowance by the Governor in Council.

The Bank of Canada and Its Relationship to the Canadian Financial System.—An article under this title is given in the 1937 Year Book, pp. 881-885. It deals with such subjects as the functions of the Bank, its control and regulation of credit and currency, the mechanism by which such control is exercised, the expansion and contraction of credit, the mitigation of general economic fluctuations, the control of exchange operations, the advisory function of the Bank and its duties as the Government's banker.

Bank of Canada Operations.—The expansion of Bank of Canada liabilities and assets in recent years has provided for increased Bank of Canada notes in active circulation (the chartered-bank note issue has been gradually retired) and has enlarged the cash reserves of the chartered banks.

1.—Assets and Liabilities of the Bank of Canada, Mar. 13, 1935, and Dec. 31, 1949-51

SOURCE: Annual Statements of the Bank of Canada.

Assets and Liabilities	Mar. 13, 1935	Dec. 31, 1949	Dec. 31, 1950	Dec. 31, 1951
Assets	\$	\$	\$	\$
Reserves (at market values)—				
Gold coin and bullion.....	106,584,356	¹ —	—	—
Silver bullion.....	986,363	—	—	—
Sterling and U.S.A. dollars.....	394,875	74,135,541	111,415,812	117,833,770
Other currencies.....	—	45,380	265,130	90,262
Totals, Reserves.....	107,965,594	74,180,921 ¹	111,680,942	117,924,032
Subsidiary coin.....	297,335	131,325	408,039	374,485
Investments (at not exceeding market values)—				
Government of Canada and Provincial				
Government short-term securities.....	34,846,294	1,781,412,576	1,222,344,790	1,141,766,318
Other Government of Canada and Provincial				
Government securities.....	115,013,637	227,818,490	712,453,868	1,049,343,536
Other securities.....	—	5,500,000	247,888,525	89,033,602
Totals, Investments.....	149,859,931	2,014,731,066	2,189,686,683	2,280,143,156
Industrial Development Bank capital stock...	—	25,000,000	25,000,000	25,000,000
Bank premises.....	—	3,649,273	5,081,069	5,069,987
All other assets.....	1,191,897	8,189,042	18,474,022	15,585,338
Totals, Assets.....	259,314,757	2,125,881,627	2,350,330,755	2,444,096,998
Liabilities				
Capital paid up.....	4,991,640	5,000,000	5,000,000	5,000,000
Reserve fund.....	—	10,050,367	10,050,367	10,050,367
Notes in circulation.....	97,805,665	1,307,424,146	1,367,421,840	1,464,160,786
Deposits—				
Government of Canada.....	4,212,200	51,098,502	44,378,082	118,901,465
Chartered banks.....	151,927,628	541,714,005	578,688,783	618,996,408
Other.....	277,922	126,933,228	207,052,610	66,089,987
Totals, Deposits.....	156,417,750	719,745,735	830,019,475	803,987,861
Liabilities payable in sterling, United States				
and foreign gold currencies.....	—	79,635,541	133,560,519	155,573,289
Dividends declared.....	—	112,500	112,500	112,500
Other liabilities.....	99,702	3,913,338	4,166,054	5,212,195
Totals, Liabilities.....	259,314,757	2,125,881,627	2,350,330,755	2,444,096,998

¹ The Exchange Fund Order, 1940, authorized the transfer of the Bank's gold holdings to the Foreign Exchange Control Board and temporarily suspended the requirement for a minimum gold reserve.

The Industrial Development Bank.—The Industrial Development Bank, a subsidiary of the Bank of Canada, was incorporated by Act of Parliament during 1944 and its banking operations commenced on Nov. 1, 1944. Its functions are described in the preamble to the Act as follows:—

"To promote the economic welfare of Canada by increasing the effectiveness of monetary action through ensuring the availability of credit to industrial enterprises which may reasonably be expected to prove successful if a high level of national income and employment is maintained, by supplementing the activities of other lenders and by providing capital assistance to industry with particular consideration to the financing problems of small enterprises."

The President of the Industrial Development Bank is the Governor of the Bank of Canada and the Directors are the Directors and Assistant Deputy Governor of the Bank of Canada. The \$25,000,000 capital stock of the Bank (completely paid up) was subscribed by the Bank of Canada. The Industrial Development Bank may also raise funds by the issue of bonds and debentures provided that its

total direct liabilities and contingent liabilities in the form of guarantees and underwriting agreements do not exceed three times the aggregate of the Bank's paid-up capital and Reserve Fund.

The lending powers of the Bank may be extended only to industrial enterprises in Canada with respect to which it is empowered to:—

- (1) lend money or guarantee loans;
- (2) enter into underwriting agreements with regard to any issue of stock, bonds or debentures;
- (3) acquire stock, bonds or debentures from the issuing corporation or any person with whom the Bank has entered into an underwriting agreement.

The Bank may accept any form of collateral security against its advances, including real property.

The Industrial Development Bank is intended to supplement the activities of other lending agencies, not to compete with them, and the Act of incorporation requires that it should extend credit only when the Board of Directors is of the opinion that similar credit would not be available elsewhere on reasonable terms and conditions. The Bank is specifically prohibited from engaging in the business of deposit banking.

Authorized and outstanding loans of the Industrial Development Bank as at Mar. 31, 1952, are classified by provinces, size of loans and industries in Table 2. Outstanding loans and investments at Dec. 31, 1951, amounted to \$30,741,256.

2.—Authorized and Outstanding Loans and Investments of the Industrial Development Bank, by Provinces, and Industry, as at Mar. 31, 1952

NOTE.—Figures for the year ended Mar. 31, 1951, which have not appeared in the Canada Year Book, may be obtained from the Bank of Canada, Ottawa.

Province	Authorized	Outstanding	Industry	Authorized	Outstanding
	\$	\$		\$	\$
Newfoundland.....	250,000	—	Foods and beverages.....	5,652,162	3,756,237
Prince Edward Island....	90,000	29,475	Leather products.....	987,500	519,864
Nova Scotia.....	671,182	440,500	Textile products (except clothing).....	3,015,908	2,588,679
New Brunswick.....	1,104,721	860,053	Clothing (textiles and fur)	1,236,150	925,602
Quebec.....	21,461,562	13,048,982	Wood products.....	7,499,835	5,391,533
Ontario.....	11,988,498	8,703,785	Paper products (including pulp).....	4,300,600	3,967,046
Manitoba.....	1,541,250	688,283	Printing, publishing and allied industries.....	695,500	407,488
Saskatchewan.....	2,087,658	1,402,685	Iron and steel products (including machinery and equipment).....	4,640,637	3,034,803
Alberta.....	2,616,200	1,127,096	Transportation equipment	2,655,664	1,152,179
British Columbia ¹	7,238,476	5,554,887	Non-ferrous metal products	295,500	242,180
Canada.....	49,049,547	31,855,746	Electrical apparatus and supplies.....	1,527,500	493,265
			Non-metallic mineral products.....	2,499,484	1,781,373
Size of Loan	Authorized	Credits	Petroleum and coal products.....	1,340,000	782,661
	\$	No.	Chemical products.....	8,197,194	3,583,468
\$5,000 or under.....	76,368	18	Miscellaneous manufacturing industries.....	843,800	587,721
\$5,001 to \$25,000.....	3,663,499	241	Refrigeration.....	3,317,113	2,635,647
\$25,001 to \$50,000.....	4,254,764	111	Generating or distributing electricity.....	345,000	6,000
\$50,001 to \$100,000.....	7,254,155	98			
\$100,001 to \$200,000.....	9,142,447	60			
\$200,001 or over.....	24,658,314	41			
Totals.....	49,049,547²	569	Totals.....	49,049,547	31,855,746

¹ Includes the Yukon and Northwest Territories. ² Net authorizations were \$41,160,509, of which those in excess of \$200,000 totalled \$22,335,864 because of partial repayments on account of current authorizations.

Section 2.—Currency

Subsection 1.—Notes and Coinage

Note Circulation.—The development by which bank notes became the chief circulating medium in Canada prior to 1935 is described at pp. 900-905 of the 1938 Year Book. The main steps of this development that remained as permanent features of the system are outlined at pp. 809-810 of the 1941 Year Book.

When the Bank of Canada commenced operations in 1935 it assumed liability for Dominion notes outstanding. These were replaced in public circulation and partly replaced in cash reserves by the Bank's legal tender notes in denominations of \$1, \$2, \$5, \$10, \$20, \$50 and \$100. Deposits of chartered banks at the Bank of Canada completed the replacement of the old Dominion notes of \$1,000 to \$50,000 denomination that had previously been used as cash reserves.

The chartered banks were required under the Bank Act of 1934 to reduce gradually the issue of their own bank notes during the years 1935-45 to an amount not in excess of 25 p.c. of their paid-up capital on Mar. 11, 1935. Bank of Canada notes thus replaced chartered bank notes as the issue of the latter was reduced. Further restrictions introduced by the 1944 revision of the Bank Act cancelled the right of chartered banks to issue or reissue notes after Jan. 1, 1945, and in January 1950 the chartered banks' liability for such of their notes issued for circulation in Canada, as then remained outstanding, was transferred to the Bank of Canada in return for payment of a like sum to the Bank of Canada.

The classification of Bank of Canada notes in circulation, by denomination, shown in Table 3 for 1950 and 1951 is not strictly comparable with the classification for earlier years. Dominion notes have been excluded from the denomination classification and their total only is shown. Also, an item has been added showing the outstanding chartered bank notes issued originally for circulation in Canada. The statistics of total notes in the hands of the general public are comparable with earlier years.

3.—Classification of Bank of Canada Notes, by Denomination, and Other Notes in Circulation, 1950 and 1951

NOTE.—Annual averages of month-end figures. The totals outstanding are not always multiples of the denominations of notes because of adjustments made according to scale when parts of mutilated notes are turned in for cancellation.

Denomination	1950	1951
	\$	\$
\$1.....	45,910,769	48,809,962
\$2.....	34,243,030	35,911,842
\$5.....	103,833,274	107,085,457
\$10.....	404,655,684	422,317,612
\$20.....	323,572,326	353,237,484
\$25.....	46,614	46,565
\$50.....	104,392,817	108,221,733
\$100.....	244,904,066	258,018,267
\$500.....	170,875	139,583
\$1,000.....	13,735,750	10,183,083
Totals.....	1,275,465,205	1,343,971,538
Provincial notes.....	27,568	27,568
Dominion notes.....	4,713,347	4,696,543
Defunct bank notes.....	85,429	88,380
Chartered bank notes ¹	12,944,361	11,895,393
Grand Totals.....	1,293,238,910	1,360,679,422

¹ In January 1950 the chartered banks' liability for such of their notes, issued for circulation in Canada, as then remained outstanding, was transferred to the Bank of Canada.

4.—Annual Averages of Note Circulation in the Hands of the Public, 1942-51

NOTE.—Newfoundland has long used Canadian bank notes so that when that Province united with Canada in 1949, no adjustment was necessary in the circulation figures, but the effect of including the population of Newfoundland from 1949 was to reduce the per capita note circulation by an estimated \$1. Figures comparable to those shown below for the years 1926-41 are given at p. 959 of the 1946 Year Book.

Year	Annual Averages of Month-End Figures			Annual Averages of Daily Figures	
	Bank of Canada Notes ¹	Chartered Bank Notes ²	Total	Amount ³	Per Capita ⁴
	\$	\$	\$	\$	\$
1942.....	472,011,416	69,502,871 ⁵	541,514,287	523,000,000	44.88
1943.....	660,998,231	49,082,172 ⁵	710,080,403	688,000,000	58.33
1944.....	821,330,660	37,056,187	858,386,847	835,000,000	69.90
1945.....	940,911,000	28,636,174	969,547,174	951,000,000	78.78
1946.....	981,727,494	23,172,717	1,004,900,211	992,000,000	80.70
1947.....	1,009,112,506	19,675,994	1,028,788,500	1,013,000,000	80.71
1948.....	1,055,587,720	17,109,071	1,072,696,791	1,053,000,000	82.12
1949.....	1,086,744,068	14,731,992	1,101,476,060	1,087,000,000	80.84
1950.....	1,100,898,470	"	1,101,322,513	1,085,000,000	79.13
1951.....	1,151,201,531	"	1,151,481,161	1,132,000,000	80.81

¹ Total issue less notes held by chartered banks. ² Gross note circulation only; notes held by other chartered banks are not available. Includes, prior to 1950, a relatively small amount issued for circulation outside Canada. ³ Figures, to nearest million, supplied by the Bank of Canada.

⁴ Figures based on estimates of population as given at p. 143; see headnote to this table. ⁵ Gross note circulation less notes held by other chartered banks. ⁶ In January 1950 the chartered banks' liability for such of their notes, issued for circulation in Canada, as then remained outstanding was transferred to the Bank of Canada.

Coinage.*—The present monetary standard of Canada is gold of 900 millesimal fineness (23.22 grains of pure gold equal to one gold dollar). Under the Uniform Currency Act of 1871, gold coin was authorized but only very limited issues were ever made. Gold coins have not been struck since 1919. The British sovereign and half-sovereign, and United States eagle, half-eagle and double eagle are legal tender. Subsidiary coin consists of \$1 and 50-, 25- and 10-cent silver pieces,† 5-cent nickel and 1-cent bronze pieces. Subsidiary silver coin is legal tender to the amount of ten dollars. The 5-cent piece is legal tender up to five dollars and the 1-cent bronze coin up to 25 cents. There is no provision for the redemption of subsidiary coin. A table at p. 807 of the 1941 Year Book gives particulars of weight, fineness, etc., of current coins.

* Revised in the Royal Canadian Mint, Ottawa.

† The Currency Act of 1910 made provision for a silver dollar and a 5-cent silver coin. The 5-cent silver coin was coined freely until 1921. It still has limited legal tender but has been replaced in the coinage by the nickel 5-cent piece. In 1942 a 5-cent piece was coined from 'tombac', a copper-zinc alloy, in order to conserve nickel for war purposes, but this coin was replaced in 1944 by a 5-cent coin composed of mild steel with a chromium finish.

5.—Circulation of Canadian Coin, as at Dec. 31, 1942-51

NOTE.—The figures shown are of net issues of coin. Figures for the years 1901-25 are given at p. 856 of the 1927-28 Year Book and for 1926-41 at p. 956 of the 1946 edition.

Year	Silver	Nickel	Tombac	Steel	Bronze	Total	Per Capita ¹
	\$	\$	\$	\$	\$	\$	\$
1942.....	44,011,038	4,827,596	169,424	—	5,422,131	54,430,189	4.67
1943.....	51,009,046	4,826,033	1,407,424	—	6,300,627	63,543,130	5.39
1944.....	54,972,812	4,825,057	1,407,754	571,000	6,753,329	68,529,952	5.74
1945.....	58,327,590	4,823,237	1,407,462	1,521,170	7,499,263	73,578,722	6.09
1946.....	59,944,549	5,113,103	1,155,791	1,520,849	8,024,547	75,758,839	6.16
1947.....	61,049,986	5,503,117	868,994	1,520,647	8,382,327	77,325,071	6.16
1948.....	63,829,640	6,117,555	730,064	1,520,210	9,088,221	81,285,690	6.34
1949.....	67,871,750	6,753,790	661,333	1,519,743	9,407,325	86,216,931	6.41
1950.....	73,473,724	7,393,138	621,440	1,519,419	10,012,143	93,019,864	6.78
1951.....	78,638,143	7,815,103	599,655	1,701,849	10,794,169	99,548,919	7.11

¹ Per capita figures are based on estimates of population as given at p. 143.

The Royal Canadian Mint.—The Mint at Ottawa was established as a branch of the Royal Mint under the (Imperial) Coinage Act, 1870, and opened on Jan. 2, 1908. By 21-22 Geo. V, c. 48, it was constituted a branch of the Department of Finance and, by the Proclamation of Nov. 14, 1931, issued under Sect. 3 of that Act, it has, since Dec. 1, 1931, operated as the Royal Canadian Mint. The British North American provinces, and later the Dominion of Canada, obtained their coins from the Royal Mint at London or from The Mint, Birmingham, Limited, England. In its earlier years the operations of the Mint in Canada were confined to the production of gold, silver and bronze coins for domestic circulation and of British sovereigns and small coins struck under contract for Newfoundland and Jamaica. Before 1914, small quantities of gold bullion were refined, but during World War I the Mint came to the assistance of the British Government by establishing a refinery in which nearly 20,000,000 oz t. of South African gold were treated on account of the Bank of England. The subsequent development of the gold-mining industry in Canada has resulted in gold-refining becoming one of the principal activities of the Mint. Most of the fine gold produced from the rough shipments from the mines is delivered to the Department of Finance (since Mar. 11, 1935, the Bank of Canada has acted as agent for the Government) in the form of bars of approximately 400 oz t. each, the rest being sold in convenient form to manufacturers. The fine silver extracted from the rough gold, when not required for coinage, is sold at New York or to local manufacturing firms.

6.—Annual Receipts of Gold Bullion at the Royal Canadian Mint, and Bullion and Coinage Issued, 1942-51

NOTE.—Figures for 1926-41 are given at p. 957 of the 1946 Year Book.

Year	Gold Received	Gold Bullion Issued	Silver Coin Issued	Nickel Coin Issued	Steel Coin Issued	Tombac Coin Issued	Bronze Coin Issued
	oz t.	oz t.	\$	\$	\$	\$	\$
1942.....	4,611,982	4,611,892	3,764,000	361,576	—	169,424	783,500
1943.....	3,616,959	3,645,740	7,044,000	—	—	1,238,000	881,300
1944.....	2,862,048	2,829,755	4,006,000	—	571,000	400	454,600
1945.....	2,503,416	2,499,163	3,416,300	—	950,300	—	748,500
1946.....	2,652,245	2,665,964	1,710,000	291,500	—	—	528,500
1947.....	2,868,469	2,859,084	1,186,000	391,000	—	—	360,300
1948.....	3,401,991	3,405,073	2,829,956	615,500	—	—	708,300
1949.....	3,925,618	3,865,296	4,148,842	637,500	—	—	321,901
1950.....	4,422,968	4,347,961	5,641,805	640,510	—	—	607,003
1951.....	4,169,480	4,167,485	5,213,677	423,003	182,829	—	783,329

Subsection 2.—General Public Holdings of Certain Liquid Assets

The Bank of Canada has developed recently a new presentation of statistics concerning the volume of money. This presentation shows not only currency and active bank deposits (formerly referred to as "money supply"), but also inactive chartered bank deposits and Government of Canada securities which, although not used to make payments, are forms in which the public holds its liquid funds. It is believed that the new series provides a better approach to the problem of measuring changes in the volume of money under present-day conditions. The Bank of Canada series has been carried back to 1938 only, whereas the former series of the Dominion Bureau of Statistics was available from 1919 (*see* 1947 Year Book, pp. 1022-1023).

7.—General Public Holdings of Certain Liquid Assets, as at Dec. 31, 1938-51

(Millions of dollars)

As at Dec. 31—	Currency and Active Bank Deposits	Chartered Bank Notice Deposits ¹	Government of Canada Securities ²	Total
1938	1,131	1,472	3,228	5,831
1939	1,370	1,544	3,279	6,193
1940	1,563	1,438	3,670	6,671
1941	1,901	1,433	4,162	7,496
1942	2,349	1,436	5,344	9,129
1943	2,726	1,654	7,184	11,564
1944	3,153	2,060	9,131	14,344
1945	3,514	2,391	11,810	17,215
1946	3,996	2,856	11,175	18,027
1947	3,944	3,143	10,763	17,850
1948	4,335	3,408	10,249	17,992
1949	4,422	3,751	9,902	18,075
1950	4,851	3,861	10,066	18,778
1951	4,843	3,894	9,388	18,125

¹ Estimated aggregate minimum quarterly balances in chartered bank personal savings deposits in Canada plus non-personal notice deposits in Canada.

² Holdings of all investors, other than the Bank of Canada, chartered banks and Government of Canada accounts. Includes direct and guaranteed securities (including refundable taxes) at par. Direct debt includes both matured and unmatured issues outstanding, exclusive of sinking fund holdings; guaranteed debt is included on the basis of total unmatured issues outstanding; Newfoundland debt assumed by the Government of Canada has been included since June 1949. Foreign pay securities have been valued at official mid-rates of exchange to Sept. 30, 1950, and at market rates thereafter.

In measuring currency and active bank deposits, it is necessary to decide which categories of bank deposits should be classed as active and which, by their nature, should be regarded more appropriately as part of the public's other liquid asset holdings. Generally, it has been satisfactory to classify bank deposits as active if cheques may be drawn against them. In other countries this criterion has seemed to work fairly well because cheques may not be drawn against savings deposits. In Canada, however, cheques are, in practice, drawn freely against savings deposits and this poses an awkward problem. To omit all savings deposits of chartered banks would ignore the obvious fact that, for many people, a savings account is an active chequing account which is very similar to a current deposit. On the other hand it is known from available information that, of the total amount on deposit in savings accounts in Canada, much the larger part is, in practice, inactive. Chartered banks pay interest on the minimum quarterly balances in personal savings accounts, i.e., on the sum that has been left undisturbed for the quarterly period; from the amount of interest that is actually paid on this basis as compared with the nominal rate of interest, it is apparent that the aggregate minimum quarterly balances in personal savings accounts are about five-sixths of the total of such deposits at the present time.

It is felt, therefore, that a more realistic account of monetary developments in Canada—and one more comparable with the usual presentation of similar statistics in other countries—is obtained by omitting the minimum quarterly balances in personal savings deposits and non-personal notice deposits from active money statistics. It has seemed preferable to exclude these deposits on the basis that they are inactive in practice rather than to include them on the grounds that they are potentially active because cheques may be issued against them.

The published returns of Canadian chartered banks include among assets "Cheques on Other Banks" which represents the amount of cheques that have been credited to the deposit account of the payee but not yet cleared against the deposit

account of the drawer. To the extent of such items in 'float' there is, therefore, duplication in the figures of bank deposits. In Table 8, "Cheques on Other Banks" has been deducted from the figure of chartered bank deposits in order to eliminate this duplication.

Government deposits are given different treatment in different countries as far as volume-of-money statistics are concerned. In most cases the commonly used figure of bank deposits excludes Government deposits and, on the whole, it appears preferable to exclude Government of Canada deposits from the Canadian active money figures.

8.—Summary Statistics of Currency and Active Bank Deposits, as at Dec. 31, 1938-51
(Millions of dollars)

As at Dec. 31—	Currency Outside Banks ¹			Active Bank Deposits			Total Currency and Active Bank Deposits
	Notes	Coin	Total Currency	Chartered Bank Net ²	Bank of Canada 'Other' Deposits ³	Total Active Bank Deposits	
1938.....	207	31	238	890	3	893	1,131
1939.....	247	34	281	1,071	18	1,089	1,370
1940.....	341	38	379	1,174	10	1,184	1,563
1941.....	450	42	492	1,403	6	1,409	1,901
1942.....	633	49	682	1,648	19	1,667	2,349
1943.....	794	55	849	1,859	18	1,877	2,726
1944.....	930	60	990	2,135	28	2,163	3,153
1945.....	992	63	1,055	2,429	30	2,459	3,514
1946.....	1,031	65	1,096	2,806	94	2,900	3,996
1947.....	1,046	66	1,112	2,764	68	2,832	3,944
1948.....	1,115	70	1,185	3,069	81	3,150	4,335
1949.....	1,110	74	1,184	3,111	127	3,238	4,422
1950.....	1,136	78	1,214	3,430	207	3,637	4,851
1951.....	1,191	84	1,275	3,502	66	3,568	4,843

¹ Note circulation excluding notes held by chartered banks together with total coin issued by the Mint, less coin held by the banks.

² Demand and notice deposits, deposits of Provincial Governments, United Kingdom and foreign banks; less 'float' deposits, that is, cheques on banks as shown in month-end returns.

³ Excludes Government of Canada, chartered bank and foreign deposits.

Section 3.—Commercial Banking

Since one of the chief functions of the early banks in Canada was to issue notes to provide a convenient currency or circulating medium, it has been expedient to cover both currency and banking in the one historical sketch, which is given at pp. 900-905 of the 1938 Year Book. A list of the banks at Confederation appears at p. 897 of the 1940 Year Book and bank absorptions since 1867 are given at pp. 812-813 of the 1941 edition. A table at pp. 894-895 of the 1937 Year Book shows the insolvencies from Confederation; the last insolvency occurred in 1923. A summary of the more important changes resulting from the revision of the Bank Act in 1944 is given at pp. 961-962 of the 1946 Year Book.

Subsection 1.—Chartered Banks

Combined Statistics of Chartered Banks.—In order to afford a clear account of the nature of banking transactions in Canada, bank liabilities have been classified in Table 9 in two main groups: liabilities to shareholders and liabilities to the public. Only the latter group is ordinarily considered when determining the financial position of any such institution. Assets are divided into four groups, 'other assets' being included in the total. Of interest to students of banking practice, the relative rates

of increase of capital and reserve funds may be noted, also the great increase in the proportion of liabilities to the public to total liabilities and the gradually increasing percentage of liabilities to the public to total assets. The declining proportion of notes in circulation to total liabilities to the public is also characteristic of the evolution of banking in recent times (*see* p. 1103).

9.—Assets and Liabilities of the Chartered Banks, 1937-51

NOTE.—These statistics are yearly averages computed from the twelve monthly returns in each year. Figures for the years 1867-1880 will be found in the 1938 Year Book, pp. 918-919; for 1881-1915 in the 1941 edition, pp. 815-816; for 1916-26 in the 1946 edition, pp. 963-964; and for 1927-36 in the 1947 edition, pp. 1025-1026.

	ASSETS						
Year	Gold Reserves, Notes of and Deposits with the Bank of Canada	Government of Canada and Provincial Government Securities	Municipal Securities in Canada and Public Securities Elsewhere	Total Securities	Total Loans	Total Assets ¹	Public Liabilities to Total Assets
	\$	\$	\$	\$	\$	\$	p.c.
1937...	249,372,724	1,118,893,938	181,972,016	1,426,371,394	1,200,574,223	3,317,087,132	91.22
1938...	262,334,597	1,143,040,485	170,487,703	1,439,666,822	1,200,692,605	3,348,708,580	91.28
1939...	279,161,539	1,234,066,994	179,924,335	1,540,330,246	1,243,616,409	3,591,564,586	91.84
1940...	296,877,855	1,311,641,053	157,361,535	1,579,467,048	1,324,021,841	3,707,316,459	92.01
1941...	318,039,223	1,483,299,697	149,467,128	1,726,543,416	1,403,181,296	4,008,381,256	92.60
1942...	349,729,409	1,806,891,877	182,052,417	2,073,471,530	1,370,418,799	4,399,820,746	93.24
1943...	422,561,348	2,404,756,734	232,405,156	2,713,939,940	1,334,080,022	5,148,458,722	94.19
1944...	538,206,187	2,991,047,582	283,417,399	3,353,259,736	1,343,938,364	5,990,410,887	94.98
1945...	604,842,928	3,438,830,751	313,061,291	3,857,534,890	1,505,039,333	6,743,217,134	95.48
1946...	686,368,427	3,734,872,237	381,996,554	4,287,002,710	1,642,519,066	7,429,608,029	95.89
1947...	679,051,569	3,395,306,552	436,075,580	4,108,441,158	2,125,582,441	7,810,913,975	95.72
1948...	719,499,043	3,314,539,556	393,841,399	4,120,137,032	2,388,597,680	8,140,145,708	95.81
1949...	762,901,802	3,573,294,569	387,844,005 ²	4,370,052,504	2,618,421,119	8,657,764,277	95.99
1950...	769,951,696	3,563,018,724	402,235,668	4,363,401,201	2,872,411,227	9,015,109,852	96.06
1951...	799,304,753	3,134,186,339	384,481,994	3,930,581,704	3,495,723,921	9,384,800,263	96.11
	LIABILITIES						
	Liabilities to Shareholders		Liabilities to the Public				
	Capital	Rest or Reserve Fund	Notes in Circulation	Demand Deposits in Canada	Notice Deposits in Canada	Total on Deposit ²	Total Public Liabilities ³
	\$	\$	\$	\$	\$	\$	\$
1937...	145,500,000	133,750,000	110,259,134	691,319,545	1,573,654,555	2,775,530,413	3,025,721,653
1938...	145,500,000	133,750,000	99,370,493	690,485,877	1,630,481,857	2,823,686,934	3,056,684,905
1939...	145,500,000	133,750,000	94,064,907	741,733,211	1,699,224,304	3,060,859,111	3,298,351,099
1940...	145,500,000	133,750,000	91,134,378	875,059,476	1,646,891,010	3,179,523,062	3,411,104,825
1941...	145,500,000	133,916,667	81,620,753	1,088,198,370	1,616,129,007	3,464,781,844	3,711,870,680
1942...	145,500,000	135,083,333	71,743,242	1,341,499,012	1,644,842,331	3,834,335,141	4,102,355,598
1943...	145,500,000	136,750,000	50,230,204	1,619,407,736	1,864,177,700	4,592,336,705	4,849,222,532
1944...	145,500,000	136,750,000	37,056,187	1,863,793,981	2,272,573,361	5,422,302,978	5,689,443,095
1945...	145,500,000	136,750,000	28,636,174	1,986,075,142	2,750,358,254	6,159,997,976	6,438,617,676
1946...	145,500,000	144,666,667	23,172,717	2,155,312,749	3,327,057,442	6,771,555,153	7,123,979,417
1947...	145,500,000	178,000,000	19,675,994	2,138,771,178	3,681,231,057	7,075,355,884	7,476,627,449
1948...	145,500,000	182,416,667	17,109,071	2,258,658,693	3,972,159,586	7,492,776,952	7,798,910,335
1949...	145,500,000	187,000,000	14,731,992	2,353,033,907	4,333,888,999	7,921,694,763	8,310,215,001
1950...	145,500,000	200,000,000	424,043 ⁴	2,562,813,591	4,547,880,387	8,220,886,332	8,660,173,804
1951...	146,502,115	200,837,564	279,630 ⁴	2,711,524,845	4,592,929,318	8,464,510,837	9,019,780,755

¹ Includes other assets not specified.
and also deposits elsewhere than in Canada.

² Includes deposits of Federal and Provincial Governments
and also deposits elsewhere than in Canada.

³ Includes other liabilities not specified.

⁴ After January 1950, the chartered banks' liability for such notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada; these figures cover notes in circulation outside Canada which were not taken over by the Bank of Canada.

10.—Analysis of Assets of Chartered Banks, 1949-51

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Assets	1949	1950	1951
	\$	\$	\$
Cash reserves against Canadian deposits (as per Table 26)	748,425,141	753,914,014	782,564,265
Subsidiary coin.....	11,775,044	13,647,917	14,587,622
Notes of other Canadian banks.....	332,915,563 ¹	379,044,434 ¹	471,665,967 ¹
Deposits at other Canadian banks.....	1,164,805	1,132,255	877,118
Gold and coin abroad.....	2,701,617	2,389,765	2,172,866
Foreign currencies.....	95,022,567	70,328,005	40,333,387
Deposits at United Kingdom banks.....	24,063,268	19,218,843	22,569,857
Deposits at foreign banks.....	166,103,764	222,287,683	237,614,233
Securities—			
Federal and Provincial Government securities.....	3,573,294,569	3,563,018,724	3,134,186,339
Other Canadian and foreign public securities.....	387,844,005	402,235,668	384,481,994
Other bonds, debentures and stocks.....	408,913,930	398,146,809	411,913,371
Call and Short Loans—			
In Canada.....	96,941,656	110,588,658	98,103,643
Elsewhere.....	83,077,981	92,927,396	107,849,379
Current Loans—			
Canada—			
Loans to Provincial Governments.....	28,885,913	24,848,392	34,723,105
Loans to cities, towns, municipalities and school districts.....	76,547,835	90,355,111	113,707,104
Other current loans and discounts.....	2,111,561,048	2,330,155,352	2,867,753,460
Elsewhere than in Canada.....	220,005,841	22,227,092	272,180,790
Non-current loans.....	1,400,845	1,309,226	1,406,440
Other Assets—			
Real estate, other than bank premises.....	506,218	429,804	156,372
Mortgages on real estate sold by the banks.....	755,184	598,750	417,479
Bank premises.....	83,771,861	94,026,032	116,185,897
Bank circulation redemption fund.....	879,942	68,506	—
Liabilities of customers under letters of credit as <i>per contra</i>	180,036,708	200,960,794	255,207,737
All other assets.....	21,168,972	21,250,622	14,161,838
Totals, Assets.....	8,657,764,277	9,015,109,852	9,384,800,263

¹ Includes cheques of other banks.

11.—Analysis of Liabilities of Chartered Banks, 1949-51

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Liabilities	1949	1950	1951
	\$	\$	\$
LIABILITIES TO THE PUBLIC			
Notes in circulation.....	14,731,992	424,043 ¹	279,630 ¹
Deposit Liabilities—			
Government Deposits—			
Federal.....	328,647,051	193,005,487	229,123,262
Provincial.....	161,680,280	186,606,599	170,266,769
Public Deposits—			
Demand.....	2,353,033,907	2,562,813,591	2,711,524,845
Notice.....	4,333,888,999	4,547,880,387	4,592,920,318
Other ²	78,396,965	81,868,085	99,007,261
Foreign.....	666,047,561	648,712,183	661,659,382
Inter-Bank Deposits—			
Canadian.....	59,567,800	81,925,038	117,943,058
United Kingdom.....	38,633,071	39,206,389	45,176,237
Other.....	85,631,541	107,215,570	127,526,578
Totals, Deposit Liabilities³.....	8,105,527,175	8,449,233,329	8,755,156,710
Canadian currency (estimated).....	7,267,000,000	7,597,000,000	7,851,000,000
Foreign currency (estimated).....	839,000,000	852,000,000	904,000,000
Totals, Note and Deposit Liabilities.....	8,120,259,167	8,449,657,372	8,755,436,340

For footnotes, see end of table.

11.—Analysis of Liabilities of Chartered Banks, 1949-51—concluded

Liabilities	1949	1950	1951
	\$	\$	\$
LIABILITIES TO THE PUBLIC—concluded			
Other Liabilities to the Public—			
Letters of credit outstanding.....	180,036,708	200,960,794	255,207,737
Liabilities not included under foregoing headings.....	9,919,126	9,555,638	9,136,678
TOTALS, LIABILITIES TO THE PUBLIC.....	8,310,215,001	8,660,173,804	9,019,780,755
LIABILITIES TO SHAREHOLDERS			
Capital.....	145,500,000	145,500,000	146,502,115
Rest or reserve fund.....	187,000,000	191,750,000	200,837,564
Grand Totals, Liabilities.....	8,642,715,001	8,997,423,804	9,367,120,434

¹ After January 1950, the chartered banks' liability for such notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada; these figures cover notes in circulation outside Canada which were not taken over by the Bank of Canada. ² Deposits in currencies other than Canadian, expressed in Canadian dollars at current rate of exchange. ³ Totals do not correspond with those in Table 9 because of the inclusion here of inter-bank deposits.

12.—Significant Ratio Comparisons of Assets and Liabilities of Chartered Banks, 1942-51

NOTE.—Yearly averages of month-end figures, except where otherwise specified. Figures for the years 1926-41 will be found in the 1946 Year Book, p. 966.

Year	Canadian Cash to Canadian Deposits		Securities to Note and Deposit Liabilities	Loans to Note and Deposit Liabilities
	Daily ¹	Month-End		
	p.c.	p.c.	p.c.	p.c.
1942.....	10.5	10.2	52.1	34.5
1943.....	10.9	10.4	57.4	28.2
1944.....	11.8	11.2	60.2	24.1
1945.....	11.4	11.0	61.2	23.9
1946.....	11.4	11.2	61.8	23.7
1947.....	10.8	10.6	56.6	29.3
1948.....	10.9	10.6	54.3	31.5
1949.....	10.4	10.3	53.8	32.2
1950.....	10.1	9.9	51.6	34.0
1951.....	10.2	10.0	44.9	39.9

¹ Figures supplied by the Bank of Canada.

13.—Deposits in Chartered Banks, according to Size and Currency, at Sept. 30, 1950 and 1951

Class and Amount of Deposit	Deposit Accounts (Canadian Currency)	Deposits in Canadian Currency	Deposit Accounts (Other than Canadian Currency)	Deposits in Currencies other than Canadian
	No.	\$	No.	\$
1950				
Deposits Payable on Demand—				
\$1,000 or less.....	823,563	179,530,007	2,699	805,371
\$1,000 to \$5,000.....	158,284	346,718,485	689	1,742,095
\$5,000 to \$25,000.....	47,533	478,122,549	444	5,341,112
\$25,000 to \$100,000.....	9,821	456,073,446	176	9,244,368
Over \$100,000.....	3,424	1,378,764,244	107	47,212,215
Adjustment items ¹.....	...	-130,504,481	...	+8,068,208
Totals.....	1,042,625	2,708,704,250	4,115	72,413,369
Deposits Payable After Notice—				
\$1,000 or less.....	6,170,130	993,856,873	97	19,388
\$1,000 to \$5,000.....	817,334	1,729,514,376	4	8,791
\$5,000 to \$25,000.....	130,538	1,098,788,807	2	12,864
\$25,000 to \$100,000.....	6,630	285,942,789	—	—
Over \$100,000.....	1,151	462,690,210	1	107,968
Adjustment items ¹.....	...	+11,087,471	—	—
Totals.....	7,125,813	4,681,880,526	104	149,011

For footnote, see end of table, p. 1108.

**13.—Deposits in Chartered Banks, according to Size and Currency,
at Sept. 30, 1950 and 1951—concluded**

Class and Amount of Deposit	Deposit Accounts (Canadian Currency)	Deposits in Canadian Currency	Deposit Accounts (Other than Canadian Currency)	Deposits in Currencies other than Canadian
	No.	\$	No.	\$
1951				
Deposits Payable on Demand—				
\$1,000 or less.....	852,867	187,152,357	2,589	749,463
\$1,000 to \$5,000.....	164,953	363,407,427	716	1,903,033
\$5,000 to \$25,000.....	49,726	501,344,301	484	6,424,776
\$25,000 to \$100,000.....	10,197	475,660,230	208	12,123,359
Over \$100,000.....	3,344	1,275,890,807	145	64,736,559
Adjustment items ¹.....	...	-152,347,068	...	+14,653,509
Totals.....	1,081,087	2,651,108,054	4,142	100,590,699
Deposits Payable After Notice—				
\$1,000 or less.....	6,415,911	1,021,377,846	60	15,734
\$1,000 to \$5,000.....	821,593	1,737,639,550	9	22,201
\$5,000 to \$25,000.....	135,617	1,143,673,834	1	22,072
\$25,000 to \$100,000.....	6,688	289,032,606	—	—
Over \$100,000.....	1,128	393,138,836	1	298,356
Adjustment items ¹.....	...	+9,848,161	...	+32
Totals.....	7,390,937	4,594,710,833	71	358,395

¹ Represents certified cheques, interest accrued on interest-bearing accounts, items in transit, etc.

**14.—Loans of Chartered Banks, according to Class, Outstanding at
Sept. 30, 1950 and 1951**

NOTE.—The classification of chartered bank loans was revised in 1950; the figures in this table are, therefore, not comparable with those for 1947-49 in the 1951 Year Book, pp. 1043-1044.

Class of Loan	1950	1951
	\$'000	\$'000
Government and Other Public Services—		
Provincial Governments.....	23,600	24,859
Municipal Governments and school districts.....	91,505	114,531
Religious, educational, health and welfare institutions.....	33,143	45,912
Totals, Government and Other Public Services.....	148,248	185,302
Financial—		
Investment dealers and brokers to the extent payable on call or within thirty days.....	101,177	107,091
Trust, loan, mortgage, investment and insurance companies and other financial institutions.....	85,983	91,720
Totals, Financial.....	187,160	198,811
Personal—		
Individuals, for other than business purposes, on the security of marketable stocks and bonds.....	243,370	255,605
Individuals, for other than business purposes, n.e.s.....	218,201	211,303
Totals, Personal.....	461,571	466,908
Agricultural, Industrial and Commercial—		
Farmers.....	255,783	298,936
Industry—		
Chemical and rubber products.....	29,175	54,257
Electrical apparatus and supplies.....	14,310	41,388
Food, beverages and tobacco.....	122,514	171,968
Forest products.....	76,057	115,685
Furniture.....	16,188	19,776
Iron and steel products.....	53,389	97,509
Mining and mine products.....	26,015	33,351
Petroleum and products.....	22,914	31,055
Textiles, leather and clothing.....	138,862	213,377
Transportation equipment.....	30,102	46,437
Other products.....	55,180	63,118
Public utilities, transportation and communication companies.....	53,912	87,937
Construction contractors.....	122,736	151,774
Grain dealers and exporters.....	93,124	98,558
Installment finance companies.....	96,476	100,830
Merchandisers.....	436,144	542,869
Other business.....	135,492	133,837
Totals, Agricultural, Industrial and Commercial.....	1,778,373	2,302,692
Grand Totals.....	2,575,352	3,153,713

Cheque Payments.—The monthly record of amounts of cheques charged to accounts at all banking offices situated in the clearing-house centres of Canada is available from 1924. Previous to that, statistics of "bank clearings" were obtained which included only dealings between two separate banks and took no account of cheque payments completed within one bank. No figures are currently available of the cheque transactions taking place outside of clearing-house centres, so that the coverage is still incomplete.

According to the trend indicated by cheques cashed, three major economic cycles have occurred since World War I. The first cycle reached its peak in 1920 with the low point of the succeeding depression in 1922. The high point was next achieved in 1929, owing partly to economic conditions involving heavy stock speculation. The low point was reached in 1932 and, with the exception of a minor set-back in 1938, an upward trend has continued to the present time.

The amount of cheques cashed in the clearing-house centres of Canada advanced year by year from 1938 to a maximum of \$112,184,633,057 in 1951 and this advance paralleled the upward movement in the payment of salaries and wages and the greater distribution of consumer goods through wholesale and retail outlets. The increase, amounting to 263 p.c. since 1938, was general in the five economic areas, British Columbia showing the greatest gain at 413 p.c. The Atlantic Provinces came second, followed by the Prairie Provinces, Ontario and Quebec. However, of the \$81,000,000,000 increase, Ontario and Quebec contributed \$56,000,000,000, or more than 69 p.c.

All clearing-house centres showed an advance in 1951 over 1950, although the magnitude of these gains varied. With the exception of Ottawa, a new maximum was established in each centre. Payments at Toronto, the leading centre, rose 6.6 p.c., those at Montreal nearly 12 p.c., Winnipeg 16 p.c. and Vancouver 19 p.c.

15.—Cheques Cashed at Individual Clearing-House Centres, 1947-51

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Clearing-House Centre	1947	1948	1949	1950	1951
	\$	\$	\$	\$	\$
Atlantic Provinces—					
Halifax.....	932,830,407	1,049,266,016	1,065,168,877	1,186,545,819	1,334,025,774
Moncton.....	310,451,042	353,563,290	383,934,526	408,604,811	431,781,204
Saint John.....	507,373,274	567,250,089	511,975,434	521,695,644	568,605,976
St. John's ¹.....	...	...	356,595,091	531,314,367	554,032,197
Totals, Atlantic Provinces...	1,750,654,723	1,970,079,395	2,317,673,928	2,648,160,641	2,888,445,151
Quebec—					
Montreal.....	20,611,366,139	20,978,798,588	22,037,124,579	26,099,176,124	29,184,504,317
Quebec.....	2,077,761,098	2,433,327,617	2,410,872,120	2,695,919,675	3,163,124,781
Sherbrooke.....	230,782,121	277,706,843	284,493,033	311,762,513	381,090,356
Totals, Quebec.....	22,919,909,358	23,689,833,048	24,732,489,732	29,106,858,312	32,728,719,454
Ontario—					
Brantford.....	321,206,951	381,128,797	435,843,033	422,413,293	486,994,671
Chatham.....	244,616,255	276,949,470	315,369,271	346,208,709	407,321,638
Cornwall ².....	...	...	...	104,523,918	187,013,346
Fort William.....	209,576,526	225,285,630	225,286,483	248,218,046	266,031,817
Hamilton.....	1,735,130,215	1,952,144,798	2,124,308,068	2,369,329,690	2,996,002,993
Kingston.....	213,911,998	232,559,287	241,453,150	273,225,082	279,208,526
Kitchener.....	435,651,884	463,306,010	494,710,382	536,279,128	623,023,658
London.....	1,013,241,572	1,069,977,738	1,181,502,918	1,391,711,953	1,528,832,870
Ottawa.....	3,919,695,689	3,676,301,837	4,040,899,636	4,140,136,704	4,459,566,076
Peterborough.....	231,700,861	260,089,790	279,739,034	308,157,373	339,002,949
St. Catharines.....	307,934,247	348,356,620	379,037,195	444,388,945	551,345,610

¹ Included from April 1949.

² Included from May 1950.

15.—Cheques Cashed at Individual Clearing-House Centres, 1947-51—concluded

Clearing-House Centre	1947	1948	1949	1950	1951
	\$	\$	\$	\$	\$
Ontario—concluded					
Sarnia.....	267,231,455	299,390,423	310,461,518	339,483,674	425,659,981
Sudbury.....	191,809,314	231,991,381	267,190,931	290,184,475	352,304,822
Toronto.....	20,210,585,424	22,655,184,798	24,712,385,631	30,276,045,017	32,271,836,720
Windsor.....	1,131,583,994	1,308,938,613	1,460,893,330	1,655,860,938	1,872,210,810
Totals, Ontario.....	30,433,876,385	33,381,605,192	36,469,080,580	43,146,166,945	47,046,956,487
Prairie Provinces—					
Brandon.....	114,364,031	133,695,331	145,757,042	154,492,112	176,870,098
Calgary.....	1,779,369,851	2,072,825,960	2,507,516,671	2,870,683,290	3,349,247,240
Edmonton.....	1,313,133,121	1,568,264,769	1,893,296,099	2,371,405,098	2,459,202,689
Lethbridge.....	168,987,463	219,442,238	246,492,056	284,387,678	309,577,383
Medicine Hat.....	98,231,596	100,545,349	102,839,449	105,443,903	123,547,273
Moose Jaw.....	207,671,843	231,955,560	248,492,488	248,525,487	277,985,850
Prince Albert.....	108,770,342	123,868,921	133,321,676	140,421,297	154,870,799
Regina.....	1,286,895,569	1,333,318,232	1,565,139,921	1,640,419,630	1,759,586,765
Saskatoon.....	394,914,872	442,603,392	465,492,857	511,781,987	590,104,806
Winnipeg.....	7,381,392,595	8,375,790,546	9,186,178,131	8,960,145,720	10,373,940,214
Totals, Prairie Provinces....	12,853,736,283	14,602,310,298	16,494,526,390	17,287,706,202	19,574,933,117
British Columbia—					
New Westminster.....	289,113,363	326,958,401	319,810,859	401,102,786	479,943,321
Vancouver.....	5,321,162,167	5,765,370,362	6,157,070,811	6,901,611,242	8,212,945,667
Victoria.....	929,640,699	951,290,865	1,063,710,543	1,143,852,711	1,252,689,860
Totals, British Columbia....	6,539,916,229	7,043,619,628	7,540,592,213	8,446,566,739	9,945,578,848
Grand Totals.....	74,498,092,978	80,687,447,561	87,554,362,843	100,635,458,839	112,184,633,057

Statistics of Individual Chartered Banks.—The principal assets and liabilities of the individual chartered banks are given for the five latest years in Tables 16 and 17.

16.—Principal and Total Assets of Individual Chartered Banks, 1947-51

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year. Figures for earlier years will be found in the corresponding table of previous Year Books.

Chartered Banks	Year	Cash Reserve Against Canadian Deposits ¹	Total Securities	Total Loans	Total Assets
		\$	\$	\$	\$
Bank of Montreal.....	1947	178,735,541	1,104,384,289	431,682,205	1,874,722,682
	1948	190,936,684	1,132,548,224	466,206,499	1,959,374,448
	1949	198,839,952	1,198,396,566	506,870,310	2,087,644,326
	1950	191,018,530	1,174,589,623	552,718,886	2,119,873,626
	1951	200,107,510	1,107,947,826	656,577,531	2,211,281,293
Bank of Nova Scotia.....	1947	49,967,010	307,005,937	235,368,583	698,656,459
	1948	52,883,260	299,319,646	270,639,558	727,956,474
	1949	61,980,211	312,681,002	307,239,629	783,613,909
	1950	65,845,694	268,697,300	348,433,490	800,761,697
	1951	67,622,645	256,251,196	409,774,033	865,013,063
Bank of Toronto.....	1947	38,125,329	196,664,385	105,737,917	376,840,923
	1948	40,898,287	210,585,319	122,612,071	408,449,544
	1949	42,979,749	231,027,870	138,250,480	446,511,338
	1950	43,127,671	227,601,591	152,578,963	463,448,709
	1951	49,515,953	189,427,769	192,550,796	483,232,621
Provincial Bank of Canada.....	1947	14,879,988	83,469,477	35,077,054	144,089,266
	1948	14,152,354	84,683,391	45,393,572	157,230,233
	1949	14,312,526	79,270,394	52,297,136	158,187,412
	1950	14,692,842	82,090,665	56,273,110	167,241,272
	1951	16,321,625	79,722,292	63,224,812	174,666,980

¹ Total Bank of Canada notes in the possession of the chartered bank together with its deposits with the Bank of Canada, but excluding minor amounts of gold carried in such reserves.

16.—Principal and Total Assets of Individual Chartered Banks, 1947-51—concluded

Chartered Banks	Year	Cash Reserve Against Canadian Deposits ¹	Total Securities	Total Loans	Total Assets
		\$	\$	\$	\$
Canadian Bank of Commerce.....	1947	124,391,358	782,280,146	369,379,307	1,415,292,575
	1948	130,729,073	781,747,684	422,682,280	1,484,744,829
	1949	125,794,695	821,003,490	486,636,542	1,589,480,484
	1950	134,567,081	812,244,333	542,079,465	1,669,015,086
	1951	136,739,020	698,032,511	674,461,500	1,717,687,434
Royal Bank of Canada.....	1947	147,566,895	1,084,949,594	540,365,479	2,118,197,065
	1948	156,088,452	1,054,214,867	597,229,707	2,139,275,066
	1949	175,243,729	1,112,548,662	634,830,429	2,237,314,965
	1950	181,864,282	1,182,485,204	685,317,779	2,385,999,922
	1951	188,444,863	1,077,074,515	833,241,545	2,469,891,410
Dominion Bank.....	1947	35,421,016	159,404,148	121,986,102	355,193,069
	1948	39,924,645	162,721,210	136,833,775	381,433,720
	1949	42,144,497	163,387,422	158,749,545	406,787,719
	1950	39,913,392	170,970,431	175,266,211	437,759,966
	1951	40,515,499	123,093,854	224,941,378	454,980,847
Banque Canadienne Nationale.....	1947	37,873,976	189,986,112	126,880,830	382,157,076
	1948	38,612,101	185,748,804	145,104,464	397,555,711
	1949	39,823,480	207,237,242	143,411,373	417,057,585
	1950	38,955,630	202,421,326	155,556,240	423,504,345
	1951	37,737,765	183,807,508	194,948,635	447,669,846
Imperial Bank of Canada.....	1947	34,685,413	179,823,529	155,432,046	410,446,539
	1948	38,164,439	189,916,690	177,358,980	451,886,227
	1949	43,684,979	227,963,454	183,698,606	498,578,396
	1950	40,328,068	223,294,804	198,016,258	513,528,659
	1951	41,925,811	199,729,358	237,027,874	535,081,692
Barclays Bank (Canada).....	1947	3,071,374	20,473,541	3,672,918	35,318,321
	1948	2,966,372	18,651,197	4,636,774	32,239,256
	1949	3,621,232	16,536,402	6,437,069	32,588,143
	1950	3,602,728	19,005,919	6,170,825	34,376,570
	1951	3,633,633	15,494,875	8,975,817	35,345,077
Totals.....	1947	664,717,900	4,108,441,158	2,125,582,441	7,810,913,975
	1948	705,355,667	4,120,137,032	2,388,697,680	8,140,145,708
	1949	748,425,050	4,370,052,504	2,618,421,119	8,657,764,277
	1950	753,913,918	4,363,401,201	2,872,411,227	9,015,109,852
	1951	782,564,224	3,930,581,704	3,495,723,921	9,384,800,263

¹ Total Bank of Canada notes in the possession of the chartered bank together with its deposits with the Bank of Canada, but excluding minor amounts of gold carried in such reserves.

17.—Principal and Total Liabilities of Individual Chartered Banks, 1947-51

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year. Figures for earlier years will be found in the corresponding table of previous Year Books.

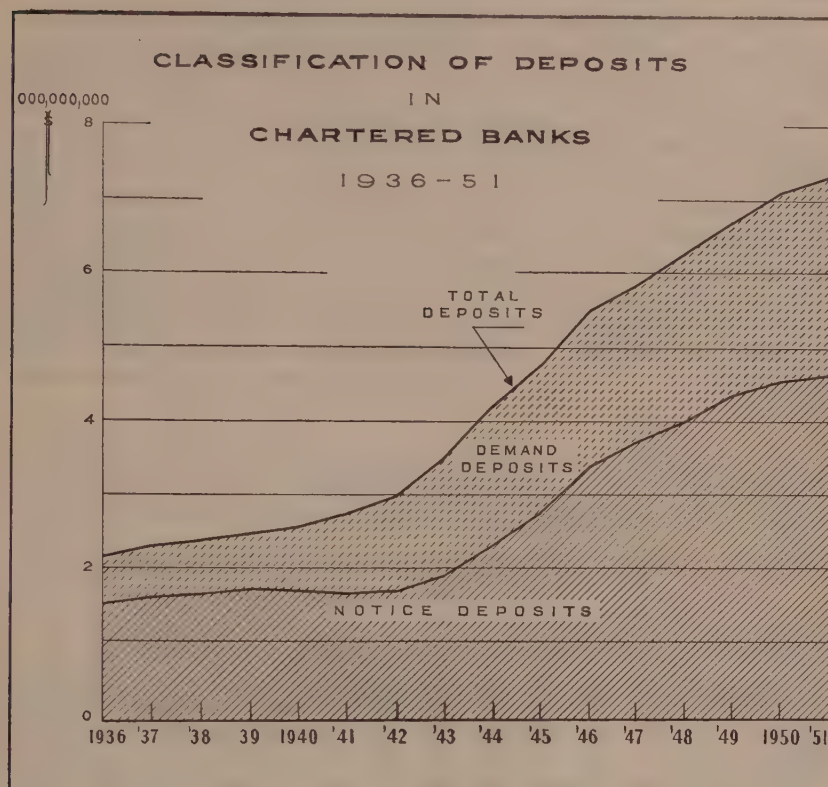
Chartered Banks	Year	Notes in Circulation	Deposit Liabilities			Liabilities to Share- holders	Total Liabilities
			Govern- ment	Public	Inter- Bank		
		\$	\$	\$	\$	\$	\$
Bank of Montreal...	1947	5,014,146	132,565,145	1,587,909,440	42,717,117	78,500,000	1,873,510,575
	1948	4,392,455	112,637,481	1,691,430,471	40,517,831	80,000,000	1,957,829,960
	1949	3,762,901	143,557,605	1,775,070,481	47,430,907	81,000,000	2,085,150,943
	1950	1	113,188,046	1,823,451,538	59,927,419	84,000,000	2,118,132,091
	1951	1	129,684,548	1,860,667,574	81,557,845	84,750,000	2,208,273,742
Bank of Nova Scotia	1947	1,932,413	25,702,906	587,577,342	12,426,171	36,000,000	696,880,300
	1948	1,535,056	20,634,134	624,644,899	13,016,868	36,000,000	725,864,470
	1949	1,267,888	25,405,279	681,721,012	13,417,246	36,000,000	781,151,368
	1950	53,686	18,355,416	699,625,336	19,454,097	36,000,000	797,830,286
	1951	47,669	20,907,810	749,998,378	23,984,242	39,006,346	861,700,956

For footnote, see end of table, p. 1112.

17.—Principal and Total Liabilities of Individual Chartered Banks, 1947-51—concluded

Chartered Banks	Year	Notes in Circulation	Deposit Liabilities			Liabilities to Shareholders	Total Liabilities
			Government	Public	Inter-Bank		
		\$	\$	\$	\$	\$	\$
Bank of Toronto....	1947	696,467	17,051,657	324,303,066	5,317,181	20,000,000	376,466,757
	1948	631,158	13,908,247	362,944,852	5,317,967	20,000,000	407,627,107
	1949	552,345	24,848,030	388,741,854	8,152,963	20,000,000	445,343,956
	1950	1	16,436,186	409,860,096	11,137,427	20,000,000	461,577,056
	1951	1	17,682,531	422,591,985	15,031,086	20,000,000	481,528,415
Provincial Bank of Canada.....	1947	384,708	3,011,102	133,264,087	94,608	6,000,000	143,775,718
	1948	316,766	2,662,392	143,949,047	1,656,324	6,000,000	156,874,730
	1949	269,588	3,406,916	144,253,494	2,256,683	6,000,000	157,776,795
	1950	1	3,491,839	154,160,746	2,623,962	6,000,000	166,729,836
	1951	1	5,347,649	159,347,422	2,960,043	6,000,000	174,104,128
Canadian Bank of Commerce.....	1947	4,099,159	68,773,283	1,215,893,902	19,689,013	60,000,000	1,412,882,716
	1948	3,570,826	65,890,265	1,280,048,414	19,949,550	60,000,000	1,482,052,049
	1949	3,067,362	91,752,261	1,355,465,678	24,151,597	60,000,000	1,586,237,445
	1950	31,268	76,413,172	1,435,888,140	34,135,503	60,000,000	1,665,056,260
	1951	25,909	82,882,336	1,459,848,644	42,592,363	60,000,000	1,712,711,379
Royal Bank of Canada.....	1947	5,098,648	84,222,561	1,816,826,776	54,770,577	75,000,000	2,116,395,179
	1948	4,500,346	69,948,684	1,862,485,458	51,905,653	75,666,116	2,136,124,395
	1949	3,948,699	104,372,640	1,936,689,313	56,516,637	79,000,000	2,235,394,252
	1950	339,089	81,870,705	2,093,354,592	63,769,448	80,000,000	2,382,629,654
	1951	206,052	76,713,987	2,143,313,746	75,401,653	85,333,333	2,458,953,685
Dominion Bank....	1947	713,331	19,081,958	300,609,534	5,920,544	16,250,000	354,014,415
	1948	628,455	16,998,800	327,649,965	8,008,815	17,000,000	380,695,783
	1949	517,692	24,164,802	345,866,988	8,450,743	17,000,000	405,657,911
	1950	1	16,974,562	380,924,138	10,982,024	17,250,000	436,615,341
	1951	1	15,060,164	388,829,356	16,577,613	18,000,000	454,387,198
Banque Canadienne Nationale.....	1947	726,021	10,963,421	349,373,975	5,082,650	14,000,000	381,717,338
	1948	637,615	10,928,193	364,371,461	5,102,830	14,000,000	397,093,101
	1949	563,659	14,106,098	382,769,935	4,146,958	14,000,000	416,560,358
	1950	1	9,639,856	394,021,804	4,093,873	14,000,000	422,940,949
	1951	1	15,959,778	409,827,637	5,130,031	14,000,000	447,001,315
Imperial Bank of Canada.....	1947	916,549	38,557,586	335,925,845	8,906,301	15,500,000	409,270,368
	1948	819,559	38,640,599	371,565,561	11,440,063	17,000,000	450,546,032
	1949	726,098	56,621,027	400,899,914	12,759,553	17,000,000	496,993,803
	1950	1	41,202,187	428,550,979	15,635,653	17,000,000	511,693,047
	1951	1	33,376,885	448,779,517	20,993,681	17,250,000	533,285,747
Barclays Bank (Canada).....	1947	94,552	4,111,656	19,625,642	6,876,702	2,250,000	35,214,083
	1948	76,835	2,760,272	18,677,757	6,912,715	2,250,000	32,119,375
	1949	55,760	2,092,673	19,888,763	6,549,143	2,500,000	32,448,170
	1950	1	2,040,117	21,436,877	6,587,591	3,000,000	34,219,284
	1951	1	1,774,343	21,916,647	6,417,316	3,000,000	35,173,869
Totals.....	1947	19,675,994	404,041,275	6,671,314,609	161,800,864	323,500,000	7,800,127,449
	1948	17,109,071	355,009,067	7,047,767,885	163,828,616	327,916,667	8,126,827,002
	1949	14,731,992	490,327,331	7,431,367,432	183,832,412	332,500,000	8,642,715,001
	1950	424,043	379,612,056	7,841,274,246	228,346,997	337,250,000	9,397,423,804
	1951	279,630	399,390,031	8,065,120,806	290,645,873	347,339,679	9,367,120,434

¹ After January 1950 the chartered banks' liability for such of their notes as then remained outstanding was transferred to the Bank of Canada.



Earnings of Individual Chartered Banks.—The chartered banks are, for the most part, nation-wide institutions, doing business in all parts of the country. Their earnings, therefore, reflect with considerable accuracy the fluctuations of general business.

18.—Net Profits of Chartered Banks and Rates of Dividend Paid, for their Business Years Ended 1949-51

Chartered Banks	1949		1950		1951	
	Net Profits	Dividend Rate	Net Profits	Dividend Rate	Net Profits	Dividend Rate
	\$	p.c.	\$	p.c.	\$	p.c.
Bank of Montreal.....	5,816,569	8 ¹	5,942,898	10	5,355,374	10 ¹
Bank of Nova Scotia.....	2,299,311	14	2,297,542	14 ¹	2,428,256	16
Bank of Toronto.....	1,155,563	12 ¹	1,207,816	14 ¹	1,116,234	14 ¹
Provincial Bank of Canada..	389,685	6 ²	336,494	6 ²	306,025	6 ²
Canadian Bank of Commerce	3,615,962	8 ¹	4,015,259	10	4,023,145	10 ²
Royal Bank of Canada.....	5,827,522	10	6,559,725	10	6,306,115	10
Dominion Bank.....	1,001,195	10	1,245,679	10	1,169,064	10
Banque Canadienne Nationale.....	618,275	8	665,639	8	802,612	8
Imperial Bank of Canada...	1,115,255	12	1,158,311	12	1,236,400	12
Barclays Bank (Canada)....	4	...	4	...	4	...
Totals, Net Profits.....	21,639,337	...	23,429,363	...	22,743,225	...

¹ Plus extra of 2 p.c.

² Plus extra of 1 p.c.

³ Plus extra of $\frac{1}{2}$ of 1 p.c.

⁴ Not reported.

Branches of Chartered Banks.—During the period from 1881 to 1901, the number of chartered banks doing business in Canada under the Bank Act remained almost the same (36 in 1881 and 1891, and 34 in 1901), but during the present century there has been in banking, as in industry, an era of amalgamations and the number of banks declined to 25 in 1913 and to 10 in 1931. That this has been far from involving a curtailment of banking facilities is seen in Table 9, which shows the development of the banking business since 1937, and in Table 19, which compares the number of branch banks existing in Canada at different periods and indicates a growth from 123 in 1868 to 4,676, inclusive of sub-agencies, at Dec. 31, 1920. As at Dec. 31, 1943, the total stood at 3,084 (exclusive of 139 branches and 3 sub-agencies in other countries), the reduction resulting from the closing of some unprofitable branches and from contractions brought about by wartime conditions. By Dec. 31, 1951, the total had increased to 3,776 (exclusive of 104 branches outside Canada).

19.—Branches of Chartered Banks in Canada, by Provinces, as at Dec. 31, for Certain Years 1868-1951

Province or Territory	1868	1902	1905	1920 ¹	1926 ¹	1930 ¹	1940 ¹	1943 ¹	1946 ¹	1948 ¹	1949 ¹	1950 ¹	1951 ¹
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland....	—	—	—	—	—	—	—	—	—	—	—	38	40
P. E. Island.....	—	9	10	41	28	28	25	23	23	23	23	23	23
Nova Scotia.....	5	89	101	169	134	138	134	126	127	132	137	144	147
New Brunswick..	4	35	49	121	101	102	97	93	96	97	98	100	101
Quebec.....	12	137	196	1,150	1,072	1,183	1,083	1,041	1,067	1,113	1,145	1,164	1,184
Ontario.....	100	349	549	1,586	1,326	1,400	1,208	1,092	1,117	1,176	1,219	1,257	1,304
Manitoba.....	—	52	95	349	224	239	162	148	151	157	161	165	168
Saskatchewan....	—	—	—	591	427	447	233	213	226	230	235	238	240
Alberta.....	—	30	87	424	269	304	172	163	190	210	230	246	257
British Columbia	2	46	55	242	186	229	192	180	216	259	268	294	304
Yukon and N.W.T.....	—	—	3	3	3	4	5	5	6	8	8	9	8
Canada.....	123	747	1,145	4,676	3,770	4,083	3,311	3,084	3,219	3,410	3,562	3,679	3,776

¹ Includes sub-agencies in Canada for receiving deposits for the banks employing them.

20.—Branches of Individual Canadian Chartered Banks in each Province and outside Canada, as at Dec. 31, 1951

NOTE.—This table does not include sub-agencies which numbered 814 in 1951.

Chartered Banks	Newfoundland	P. E. Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	No.	No.	No.	No.	No.	No.	No.
Bank of Montreal.....	8	1	16	14	111	185	26
Bank of Nova Scotia.....	16	8	40	35	29	132	8
Bank of Toronto.....	—	—	1	—	21	123	14
Provincial Bank of Canada...	—	2	—	10	111	12	—
Canadian Bank of Commerce.	3	6	19	7	67	226	35
Royal Bank of Canada.....	9	5	64	22	89	220	56
Dominion Bank.....	—	—	1	2	10	107	13
Banque Canadienne Nationale	—	—	—	—	224	12	3
Imperial Bank of Canada.....	—	—	1	—	7	123	7
Barclays Bank (Canada).....	—	—	—	—	2	1	—
Totals.....	36	22	142	90	671	1,141	162

**20.—Branches of Individual Canadian Chartered Banks in each Province
and outside Canada, as at Dec. 31, 1951—concluded**

Chartered Banks	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.	Outside Canada	Total
	No.	No.	No.	No.	No.	No.
Bank of Montreal.....	36	50	63	2	5	517
Bank of Nova Scotia.....	22	23	31	—	25	389
Bank of Toronto.....	24	14	17	1	—	215
Provincial Bank of Canada.....	—	—	—	—	—	135
Canadian Bank of Commerce.....	46	48	75	3	9	544
Royal Bank of Canada.....	74	55	62	1	62	718
Dominion Bank.....	4	10	5	—	2	154
Banque Canadienne Nationale.....	—	—	—	—	1	240
Imperial Bank of Canada.....	24	23	17	1	—	208
Barclays Bank (Canada).....	—	—	1	—	—	4
Totals.....	230	228	271	8	104	3,104

The number of branches of Canadian banks doing business outside Canada increased rapidly during World War I and the early post-war period, rising to a total of 206 in 1921; the number has gradually declined since.

**21.—Branches of Individual Canadian Chartered Banks outside Canada, with
their Locations, as at Dec. 31, 1950 and 1951**

Bank and Location	1950	1951	Bank and Location	1950	1951
	No.	No.		No.	No.
Bank of Montreal—			Royal Bank of Canada—		
United Kingdom.....	2	2	United Kingdom.....	2	2
United States.....	3	3	British West Indies.....	12	12
			United States.....	1	1
Bank of Nova Scotia—			Cuba.....	17	18
United Kingdom.....	1	1	Puerto Rico.....	3	3
British West Indies.....	13	13	Central and South America.....	19	19
Dominican Republic.....	1	1	Haiti.....	1	—
United States.....	1	1	Dominican Republic.....	5	6
Cuba.....	7	7	France.....	1	1
Puerto Rico.....	2	2			
			Dominion Bank—		
Canadian Bank of Commerce—			United Kingdom.....	1	1
United Kingdom.....	1	1	United States.....	1	1
British West Indies.....	3	3			
United States.....	5	5	Banque Canadienne Nationale—		
			France.....	1	1
			Totals.....	103	104

Subsection 2.—Government and Other Savings Banks

There are three distinct types of savings banks in Canada in addition to the savings departments of the chartered banks and of trust and loan companies. Firstly, there is the Post Office Savings Bank, in which deposits are a direct obligation of the Government of Canada; secondly, there are Provincial Government savings banking institutions in Ontario and in Alberta, where the depositor becomes a direct creditor of the province; and thirdly, there are, in the Province of Quebec, two important savings banks, the Montreal City and District Savings Bank and La Banque d'Économie de Québec, established under federal legislation and reporting monthly to the Department of Finance. Other agencies for the promotion of thrift, through encouraging regular savings, are the co-operative credit unions.

Post Office Savings Bank.—The Post Office Savings Bank was established under the Post Office Act of 1867 (31 Vict., c. 10) in order to “enlarge the facilities now available for the deposit of small savings, to make the Post Office available for that purpose, and to give the direct security of the nation to every depositor for repayment of all money deposited by him together with the interest due thereon”. Branches of the Government of Canada’s Savings Bank under the Department of Finance were gradually amalgamated with this Bank over a period of 50 years and the amalgamation was completed in March 1929.

22.—Financial Business of the Post Office Savings Bank, as at Mar. 31, 1947-52

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books. Totals back to 1867 are given in the 1926 and 1946 editions, at pp. 833-834 and 978, respectively.

Item	1947	1948	1949	1950	1951	1952
	\$	\$	\$	\$	\$	\$
Deposits—						
Total.....	35,764,512	36,226,060	37,741,389	38,754,634	37,661,921	38,031,232
Made during year.....	13,834,474	11,983,690	12,843,954	12,144,889	10,368,266	11,011,092
Interest on deposits.....	681,694	690,584	710,012	729,007	733,899	722,804
Totals, cash and interest....	14,516,168	12,674,274	13,553,966	12,873,896	11,102,165	11,733,896
Withdrawals.....	14,288,809	12,212,726	12,038,638	11,860,651	12,194,872	11,364,584

Provincial Government Savings Banks.—Institutions for the deposit of savings are operated by the Provincial Governments of Ontario and Alberta.

Ontario.—The establishment of the Province of Ontario Savings Office was authorized by the Ontario Legislature at the 1921 session and the first branches were opened in March 1922. Interest at the rate of 1 and $1\frac{1}{2}$ p.c. per annum compounded half-yearly is paid on accounts. The deposits are repayable on demand. Total deposits at Mar. 31, 1952, were \$59,404,866 and the number of depositors at that date was approximately 100,000. Twenty-two branches are in operation throughout the Province.

Alberta.—In Alberta, the Provincial Treasury receives savings deposits and issues demand certificates bearing interest at $1\frac{1}{2}$ p.c. or term certificates for one, two, three, four or five years, in denominations of \$25 and upwards, bearing interest at 2 p.c. for one or two years, $2\frac{1}{2}$ p.c. for three or four years and $2\frac{1}{2}$ p.c. for five years. The total amount in savings certificates at Mar. 31, 1952, was \$391,780 made up of \$144,980 in demand certificates and \$246,800 in term certificates.

In addition, savings deposits are accepted at 45 Provincial Treasury Branches throughout the Province. The total of these deposits at Mar. 31, 1952, was \$17,699,700 made up of \$13,030,674, payable on demand, and bearing interest at $\frac{1}{2}$ of 1 p.c. to $1\frac{1}{2}$ p.c. and \$4,669,026 payable one year after deposit and bearing interest at 1 p.c. to 2 p.c.

Other Savings Banks.—The Montreal City and District Savings Bank, founded in 1846 and now operating under a charter of 1871, had at Mar. 31, 1952, a paid-up capital and reserve of \$6,000,000, savings deposits of \$174,788,173, and total liabilities of \$182,559,880. Total assets amounted to \$182,728,628, including over \$150,000,000 of federal, provincial and municipal securities. La Banque d’Économie de Québec, founded in 1848 (as La Caisse d’Économie de Notre-Dame

de Québec) under the auspices of the St. Vincent de Paul Society, incorporated by Act of the Canadian Legislature in 1855 and given a federal charter by 34 Vict., c. 7, had at Mar. 31, 1952, savings deposits of \$25,554,212 and a paid-up capital and reserve of \$3,000,000. Liabilities amounted to \$28,781,853 and total assets to \$29,223,496.

Table 23 shows the savings deposits in the Montreal City and District Savings Bank and La Banque d'Économie de Québec for the years ended Mar. 31, 1938-52.

23.—Deposits in the Montreal City and District Savings Bank and La Banque d'Économie de Québec, Years Ended Mar. 31, 1938-52

NOTE.—Figures for the years 1868-1926 appear at pp. 833-834 of the 1926 Year Book; for the years 1927-37 at p. 980 of the 1946 edition.

Year	Deposits	Year	Deposits	Year	Deposits
	\$		\$		\$
1938.....	77,260,433	1943.....	84,023,772	1948.....	170,103,786
1939.....	81,566,754	1944.....	103,276,757	1949.....	184,250,615
1940.....	79,838,963	1945.....	122,574,607	1950.....	192,567,275
1941.....	76,391,775	1946.....	140,584,525	1951.....	193,982,871
1942.....	74,386,412	1947.....	153,137,545	1952.....	200,342,385

Credit Unions.*—At the end of 1950 there were 2,965 credit unions chartered in the ten provinces of Canada. Total membership of 1,036,175 was reported, an increase of 95,748 over 1949. Assets in 1950 amounted to \$311,532,000 compared with \$282,242,000 in 1949. Total savings in share and deposit accounts in 1950 increased over 1949 by \$25,000,000.

Credit unions exist to provide people with a convenient place to deposit savings and also as a source of short-term credit for "provident and productive purposes". During 1950, Canadian credit unions loaned over \$108,500,000 to their members.

The credit unions are chartered by provincial legislation and supervision and inspection is done by the provincial department concerned. Each province has a credit union league or federation of credit unions which is responsible for the promotion and protection of the credit union movement. As a result of varying and different policies and agencies, development has differed from province to province; Quebec, where the movement was founded on the North American Continent in 1900, is the leading province in the number of credit unions, membership and total assets and Ontario is second in credit union development.

Over 50 p.c. of the credit unions in Canada are found in rural areas and in rural towns and villages. The exceptions to this rule are in Ontario where the development is mostly in industrial areas among wage-earners in plants, factories and offices and in British Columbia where the development is also more pronounced in the industrial cities and towns.

Central Credit Unions.—In every province there exists one or more central credit unions which take as deposits the surplus funds of individual credit unions and make these funds available to other credit unions in need of funds to meet

* Prepared by J. E. O'Meara, Economics Division, Marketing Service, Department of Agriculture, Ottawa.

loan demands from their members. In addition, these central credit unions can and do invest some of these funds in bonds of municipalities and other governments or in bonds and debentures of commercial co-operatives.

During 1950 there were 23 such central credit unions. Eleven of these were in Quebec, four in Ontario and one in each of the other provinces. Total assets reported in 1950 amounted to \$34,800,000, of which \$27,000,000 was held by the 11 centrals in Quebec.

24.—Growth of Credit Unions in Canada, Certain Years, 1920-50

Year	Provinces in which Unions Exist	Credit Unions	Members	Assets
	No.	No.	No.	\$
1920.....	1 ¹	113	31,752	6,306,965
1925.....	1 ¹	122	33,279	8,261,515
1930.....	2 ²	179	45,767	11,178,810
1935.....	3 ³	277	52,045	10,173,997
1940.....	9	1,167	201,137	25,069,685
1941.....	9	1,314	238,463	31,230,813
1942.....	9	1,486	295,984	43,971,925
1943.....	9	1,780	374,069	69,219,654
1944.....	9	2,051	478,841	92,574,440
1945.....	9	2,219	590,794	145,890,889
1946.....	9	2,422	688,739	187,507,303
1947.....	9	2,516	779,199	221,116,168
1948.....	9	2,608	850,608	253,584,282
1949.....	10	2,819	940,427	282,242,278
1950.....	10	2,965	1,036,175	311,532,143

¹ Quebec.

² Quebec and Ontario.

³ Quebec, Ontario and Nova Scotia.

25.—Summary Statistics of Credit Unions, by Provinces, 1950

Province	Credit Unions Chart- ered	Credit Unions Report- ing	Mem- bers	Assets	Shares	Deposits	Loans to Members During Year	Total Loans Since Inception
	No.	No.	No.	\$	\$	\$	\$	\$
Nfld.....	82	73	4,572	345,188	285,976	8,335	180,062	2,220,085
P.E.I.....	55	55	9,928	844,632	665,050	88,908	485,891	3,000,000
N.S.....	221	194	41,882	4,868,967	4,268,362	76,422	3,059,413	22,746,930
N.B.....	163	162	43,141	4,875,594	4,329,938	94,671	2,641,878	19,589,881
Que.—								
Desjardins...	1,084	1,077	599,517	225,630,874	16,044,775	195,652,461	50,313,959	503,382,124
Que. League...	39	35	11,884	2,335,239	853,147	1,245,773	1,948,489	4,082,226
Montreal Fed.	10	10	18,823	10,577,857	799,917	9,166,551	1,719,655	18,872,385
Ont.....	491	440	144,871	26,478,071	15,997,103	7,820,482	22,035,285	92,747,209
Man.....	149	131	35,315	5,615,371	3,154,484	2,037,212	3,858,896	19,675,377
Sask.....	245	245	48,236	12,560,727	7,986,692	2,460,893	8,788,257	37,287,724
Alta.....	203	199	27,936	4,607,245	3,829,552	309,760	3,638,043	18,242,013
B.C.....	223	177	50,170	12,792,378	9,806,730	1,943,772	9,868,437	35,396,612
Totals, 1950...	2,965	2,801	1,036,175	311,532,143	68,021,726	220,905,240	108,538,265	777,242,566

Section 4.—Monetary Reserves

Bank of Canada Reserves.—The composition of Canadian gold reserves held by the Government is presented in the 1936 Year Book, at p. 895, for the years 1905 to 1934. Since March 1935 the gold reserves have been held by the Bank of Canada, by authority of the Exchange Fund Act (c. 60, 1935), effective

in July 1935. The reserves are valued at the current market price of gold and are shown under the item "Reserves" in the "Assets" section of Table 1, p. 1098. As explained in the footnote to that table, under the Exchange Fund Order of Apr. 30, 1940, the gold reserves of the Bank of Canada were transferred to the Exchange Fund Account but the requirement that the Bank should maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada was suspended.

Chartered Bank Cash Reserves.—Until March 1935, legal tender cash reserves in Canada were made up partly of Dominion notes, partly of gold coin and bullion, and subsidiary coin, including these forms of cash held by the banks and as deposits in the Central Gold Reserves. In so far as these reserves were in actual gold or were in Dominion notes backed by gold, they were subject, so long as Canada was on the gold standard, to the expanding or contracting influences of monetary gold imports or exports arising from Canada's balance of international payments.

When the Bank of Canada was established, the chartered banks turned over their reserves of gold in Canada and Dominion notes to the new bank in exchange for deposits with, and notes of, the Bank of Canada and it was provided that, henceforth, the chartered banks were to carry reserves in these forms amounting to at least 5 p.c. of their deposit liabilities in Canada. Since that time, therefore, the gold reserves against currency and bank credit have been in the custody of the central bank, except as affected by the Exchange Fund Order, 1940, as explained under "Bank of Canada" in Section 1, p. 1095.

26.—Annual Averages of Cash Reserves of the Chartered Banks, 1942-51

NOTE.—Figures, to nearest million, supplied by the Bank of Canada. Cash reserves include notes and deposits with the Bank of Canada. Figures for the years 1926-41 are given at p. 960 of the 1946 Year Book.

Year	Annual Average of Daily Figures	Annual Average of Month-End Figures	Year	Annual Average of Daily Figures	Annual Average of Month-End Figures
	\$	\$		\$	\$
1942.....	342,000,000	340,000,000	1947.....	670,000,000	665,000,000
1943.....	423,000,000	413,000,000	1948.....	711,000,000	705,000,000
1944.....	538,000,000	527,000,000	1949.....	746,000,000	748,000,000
1945.....	603,000,000	593,000,000	1950.....	755,000,000	754,000,000
1946.....	672,000,000	673,000,000	1951.....	791,000,000	783,000,000

Section 5.—Foreign Exchange

Exchange Rates.—The Canadian dollar, adopted as Canada's currency in 1857, was equivalent to 15/73 of the pound sterling; in other words, the pound was equal to \$4.866 in Canadian currency at par, and remained so, with minor variations between the import and export gold points representing the cost of shipping gold in either direction, until the outbreak of World War I. During the first 11 years after Confederation, the Canadian dollar was at a premium in the United States, as the United States dollar was not, after the Civil War, redeemable in gold until 1878. From the latter date, the dollar in the two countries was equivalent at par, and variation was only between the import and export gold points or under \$2 per \$1,000.

At the outbreak of World War I, the United Kingdom and Canada suspended the gold standard, and their currencies fell to a discount at New York. However, this discount was 'pegged', or kept at a moderate percentage, by sales of United States securities previously held in the United Kingdom, by borrowing in the United States and, after the United States entered the War, by arrangement with the United States Government. After the War, when the exchanges were 'unpegged', the British pound went as low as \$3.18 and the Canadian dollar as low as 82 cents at New York. In the course of the next year or two, exchange returned practically to par, and the United Kingdom resumed gold payments in April 1925 as did Canada on July 1, 1926. Until 1928 the exchanges were within the gold points, but in 1929 the Canadian dollar again fell to a moderate discount at New York. The dislocation of exchange persisted, with the exception of a few months in the latter half of 1930, into 1931. Dollar rates were below the gold export points, however, only for a few scattered intervals. Immediately on the outbreak of World War II in September 1939, the United Kingdom and other sterling countries introduced foreign exchange control, involving fixed buying and selling rates which were \$4.02½ and \$4.03½, respectively, in terms of the U.S. dollar. Meanwhile, the Canadian dollar declined gradually until Sept. 16, 1939, when the Government established the Foreign Exchange Control Board. Fixed buying and selling rates were provided for United States funds and sterling at the outset, being \$1.10 and \$1.11 and \$4.43 and \$4.47, respectively. The former rates fixed the value of the Canadian dollar at 90.09 cents to 90.91 cents in terms of the U.S. dollar; this was approximately the market rate to which the Canadian dollar had fallen just prior to exchange control and, in terms of devaluation, represented a level midway between the U.S. dollar and sterling.

Apart from a minor adjustment on Oct. 15, 1945, when selling rates for U.S. dollars and sterling were lowered to \$1.10½ and \$4.45, respectively, the Foreign Exchange Control Board's official rates remained unaltered until July 5, 1946. At this time, the rate on the U.S. dollar was restored to par with buying and selling rates for U.S. dollars at \$1.00 and \$1.00½ and sterling, \$4.02 and \$4.04. These rates continued in effect until Sept. 19, 1949, when, following a 30.5 p.c. reduction by the United Kingdom in the value of sterling to \$2.80 U.S. (which action was paralleled in varying degrees by numerous other currencies), Canada returned to the former official rates of \$1.10 and \$1.10½ for United States funds; sterling was quoted at new rates of \$3.07½ and \$3.08½, based on the New York cross rate.

On Sept. 30, 1950, the Minister of Finance announced that official fixed foreign exchange rates, that had been in effect at varying levels since 1939, would be cancelled effective Oct. 2 and that rates of exchange would be determined by conditions of supply and demand for foreign currencies, i.e., by market trading within the framework of exchange control. Subsequently, the U.S. dollar fell to a level between \$1.04 and \$1.05 in terms of Canadian funds in early December 1950. After strengthening in the second quarter of 1951, it declined to between \$1.01 and \$1.04 in December 1951.

The foregoing review is exclusive of the free market for Canadian dollars in New York which existed until the suspension of fixed rates. The Foreign Exchange Control Board permitted transfers, between non-residents, of Canadian dollars that were not convertible into foreign exchange at official rates; these consisted of non-resident owned bank balances, augmented by receipts from maturing capital obligations to non-residents in Canadian funds and certain restricted payments

by residents and could be used mainly for travel and capital investment in Canada. The volume of such trading in Canadian funds was very small in relation to turnover in the official market; it was almost entirely outside the orbit of dealings between residents and non-residents and quotations were frequently erratic owing to the narrow market, varying from virtual parity with official rates to as much as 15 p.c. under these. After the designation of official rates of exchange was withdrawn, the so-called unofficial rates for Canadian dollars at New York disappeared.

Changes in Exchange Control Policies and Methods, 1950 and 1951.*—

On Dec. 14, 1951, the Foreign Exchange Control Regulations were revoked by the Governor in Council and new Regulations were passed which exempted all persons and transactions from the various declaration and permit requirements of the Foreign Exchange Control Act, thus terminating exchange control in Canada.

This action followed a period in which there had been a progressive relaxation of Canadian exchange restrictions. Travel restrictions were abolished in October 1950 and the last of the import restrictions imposed for exchange reasons were done away with at the beginning of 1951. During 1951, there were a number of relaxations in administrative procedures followed by the Foreign Exchange Control Board and in February the Foreign Exchange Control Regulations were amended to increase from \$50 to \$100 the amount of United States currency which a resident of Canada might retain in his possession, and the exemption from permit for the export of currency by resident travellers was changed from \$50 in United States currency and a total of \$100 in both United States and Canadian currency to a combined total of \$100 in either currency. Furthermore, the Regulations were amended to increase from \$50 to \$100 the general exemption from completion of a permit form for applications for United States dollars in forms other than currency. At the same time, the authority of banks and other agents to sell United States dollars for benevolent remittances was increased from \$50 to \$100 per applicant per month.

Commencing in October 1951, a resident of Canada moving to a United States dollar area country was permitted to transfer up to \$25,000 at the time of departure and, upon investing any remainder of his cash assets in Canadian securities, was treated immediately as a non-resident for exchange control purposes. Accordingly, thereafter he could obtain the transfer of any Canadian income or was free to export and sell his Canadian securities outside Canada. Previously, the maximum amount of funds that could be transferred was \$25,000 a year for three years and only at the end of that period was an emigrant regarded as a non-resident with respect to any balance of his assets in Canada.

After October 1951, favourable consideration was given to applications by Canadian mining and oil interests to obtain United States dollars to make direct investments abroad in mining and oil properties. Until that time such applications ordinarily had not been approved.

* The main operations of the Foreign Exchange Control Board during 1950 are given in the 1951 Year Book, pp. 1056-1057. Reviews of the Board's activities in earlier years will be found in previous Year Books.

27.—Canada's Holdings of Gold and United States Dollars, as at Dec. 31, 1939-51

(Millions of U.S. Dollars)

Year	Exchange Fund Account and Bank of Canada		Other Government of Canada Accounts	Total ¹	Year	Exchange Fund Account and Bank of Canada		Other Government of Canada Accounts	Total
	Gold	U.S. Dollars	U.S. Dollars	Gold and U.S. Dollars		Gold	U.S. Dollars	U.S. Dollars	Gold and U.S. Dollars
1939 ²	204.9	33.8	22.4	393.1	1945....	353.9	922.0	232.1	1,508.0
1939.....	218.0	51.8	33.4	404.2	1946....	536.0	686.3	22.6	1,244.9
1940.....	136.5	172.8	20.8	332.1	1947....	286.6	171.8	43.3	501.7
1941.....	135.9	28.2	23.5	187.6	1948....	401.3	574.5	22.0	997.8
1942.....	154.9	88.0	75.6	318.5	1949....	486.4	594.1	36.6	1,117.1 ³
1943.....	224.4	348.8	76.4	649.6	1950....	580.0	1,144.9	16.6	1,741.5
1944.....	293.9	506.2	102.1	902.2	1951....	841.7	899.5	37.4	1,778.6

¹ Includes private holdings, exclusive of working balances, of \$132,000,000 at Sept. 15, 1939, \$98,000,000 at Dec. 31, 1939, and \$2,000,000 at Dec. 31, 1940. ² Sept. 15. ³ Excludes \$18,200,000 borrowed in the United States in August 1949, and set aside for the retirement on Feb. 1, 1950, of a security issue guaranteed by the Federal Government and payable at the holder's option in United States dollars.

PART II.—MISCELLANEOUS COMMERCIAL FINANCE

Section 1.—Loan and Trust Companies*

The 1934-35 Year Book presents at p. 993 an outline of the development of loan and trust companies in Canada from 1844 to 1913.

The laws relating to loan and trust companies were revised by the Loan and Trust Companies Acts of 1914 (4-5 Geo. V, cc. 40 and 55), with the result that the statistics of provincially incorporated loan and trust companies ceased to be collected. However, summary statistics of provincial companies have been supplied by those companies since 1922 and summary figures for the years 1948 to 1951 are included in Table 1 in order to complete the statistics for loan and trust companies throughout Canada. It is estimated that more than 95 p.c. of the business of provincial companies is represented in the figures, so that they may be accepted as fairly inclusive and representative of the volume of business transacted as compared with the federal licensed companies.

The statistics of Tables 2 and 3 refer both to those companies incorporated by the Government of Canada and by the provinces. Included in the statistics of federal companies, beginning with 1925, are data of Loan and Trust Companies incorporated by the Province of Nova Scotia and brought by the laws of that province under the examination of the Federal Department of Insurance, as well as data for Trust Companies in New Brunswick since 1934 and in Manitoba since 1938. In 1920, the Department of Insurance took over from the Department of Finance the administration of the legislation concerning federal loan and trust companies.

The progress of the aggregate of loan company business in Canada is indicated by the increase in the book value of the assets of all loan companies from \$188,637,298 in 1922 to \$292,095,485 in 1951. The assets of trust companies (not including estates, trust and agency funds, which cannot be regarded as assets in the same

* Revised under the direction of R. W. Warwick, Superintendent of Insurance, Department of Insurance.

sense as company and guaranteed funds) increased from \$154,202,165 in 1928 to \$454,824,789 in 1951. In the former year, the total of estates, trust and agency funds administered amounted to \$1,077,953,643 and in 1951 to \$3,826,542,326.

Functions of Loan Companies.—The principal function of loan companies is the lending of funds on first-mortgage security, the money thus made available for development purposes being secured mainly by the sale of debentures to the investing public and by savings-department deposits. The extent of investments in mortgages by loan companies, federal and provincial, may be gauged by the following figures. Total assets of these companies for the years 1950 and 1951 amounted to \$280,237,893 and \$292,095,485, respectively, which amounts include mortgage loans of \$169,943,616 and \$186,508,636, respectively, with resulting percentages of mortgages to total assets of approximately 60 p.c. and 64 p.c., respectively.

Functions of Trust Companies.—Trust companies act as executors, trustees and administrators under wills or by appointment, as trustees under marriage or other settlements, as agents or attorneys in the management of the estates of the living, as guardians of minor or incapable persons, as financial agents for municipalities and companies and, where so appointed, as authorized trustees in bankruptcy. Such companies receive deposits for investment, but the investing and lending of such deposits and of actual trust funds are restricted by law.

Statistics of Loan and Trust Companies.—A summary of operations of provincial and federal loan and trust companies is given in Table 1. As a result of the nature of the operations of the latter companies, which are intimately connected with the matter of probate, the larger trust companies usually choose to operate under provincial charters, and the provincial figures represent much larger amounts than those of the federal companies.

The figures for federal loan companies include companies chartered by the Government of Nova Scotia which, by arrangement, come under inspection by the Federal Department of Insurance. The data for federal trust companies, likewise, cover companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba for the same reason.

1.—Operations of Provincial and Federal Loan and Trust Companies, as at Dec. 31, 1948-51

Item	1948			1949		
	Provincial Companies ¹	Federal Companies	Total	Provincial Companies ¹	Federal Companies	Total
	\$	\$	\$	\$	\$	\$
Loan Companies—						
Assets (book values).....	78,287,490	165,261,293	243,548,783	80,207,903	179,795,977	260,003,880
Liabilities to the public.....	48,775,726	130,573,614	179,349,340	51,546,444	144,414,068	195,960,512
Capital Stock—						
Authorized.....	29,139,345	56,000,000	85,139,345	26,138,345	56,000,000	82,138,345
Subscribed.....	17,319,552	21,413,900	38,733,452	16,500,861	21,340,200	37,841,061
Paid-up.....	15,517,508	17,980,206	33,497,714	14,106,858	18,043,255	32,150,113
Reserve and contingency funds.....	10,377,070	15,114,978	25,492,048	10,172,049	16,344,790	26,516,839
Other liabilities to shareholders.....	3,617,156	1,448,342	5,065,528	4,382,552	993,863	5,376,415
Total liabilities to shareholders.....	29,511,764	34,543,526	64,055,290	28,661,459	35,381,908	64,043,367
Net profits realized during year.....	1,380,885	1,685,186	3,066,071	1,316,827	1,704,111	3,020,938

For footnote, see end of table, p. 1124.

**1.—Operations of Provincial and Federal Loan and Trust Companies, as at
Dec. 31, 1948-51—concluded**

Item	1948			1949		
	Provincial Companies ¹	Federal Companies	Total	Provincial Companies ¹	Federal Companies	Total
	\$	\$	\$	\$	\$	\$
Trust Companies—						
Assets (book values)—						
Company funds.....	67,951,786	25,788,544	93,740,330	67,851,784	26,244,737	94,096,521
Guaranteed funds....	190,958,447	81,845,528	272,803,975	209,764,168	90,111,500	299,875,668
Totals, Assets.....	258,910,233	107,634,072	366,544,305	277,615,952	116,356,237	393,972,189
Estates, trust, and agency funds.....	2,791,584,378	520,860,737	3,312,445,115	2,827,938,797	560,080,611	3,388,069,408
Capital Stock—						
Authorized.....	47,225,000	32,250,000	79,475,000	46,825,000	35,250,000	82,075,000
Subscribed.....	25,532,885	15,180,270	40,713,155	25,994,893	15,137,270	41,132,163
Paid-up.....	24,414,635	14,459,414	38,874,049	25,606,885	14,535,022	40,141,907
Reserve and contingency funds.....	24,673,056	7,994,585	32,667,641	25,761,163	8,483,619	34,244,782
Unappropriated surpluses.....	5,005,479	1,497,401	6,502,880	5,070,066	1,687,405	6,757,471
Net profits realized during year.....	3,088,762	896,527	3,985,289	3,231,508	1,172,427	4,403,935
	1950			1951		
	Provincial Companies ¹	Federal Companies	Total	Provincial Companies ¹	Federal Companies	Total
	\$	\$	\$	\$	\$	\$
Loan Companies—						
Assets (book values)—						
Liabilities to the public.....	89,504,876	190,733,017	280,237,893	88,991,635	203,103,850	292,095,485
Capital Stock—	59,893,359	152,825,544	212,718,903	63,699,805	165,768,886	229,468,691
Authorized.....	30,997,745	56,000,000	86,997,745	23,994,745	56,250,000	80,244,745
Subscribed.....	19,008,850	23,832,200	42,841,050	13,316,150	21,582,700	35,398,850
Paid-up.....	16,081,176	20,606,187	36,687,363	10,374,952	18,419,587	28,794,539
Reserve and contingency funds.....	9,541,353	15,973,533	25,514,886	10,494,902	17,139,072	27,633,974
Other liabilities to shareholders.....	3,988,988	1,230,914	5,219,902	4,421,976	1,641,154	6,063,130
Total liabilities to shareholders.....	29,611,517	37,810,634	67,422,151	25,291,830	37,199,813	62,491,643
Net profits realized during year.....	1,217,149	3,638,469	4,855,618	1,417,456	1,664,925	3,082,381
Trust Companies—						
Assets (book values)—						
Company funds.....	72,333,416	27,988,873	100,322,289	74,399,405	28,446,331	102,845,736
Guaranteed funds....	247,480,875	93,082,706	340,563,581	258,413,136	93,565,917	351,979,053
Totals, Assets.....	319,814,291	121,071,579	440,885,870	332,812,541	122,012,248	454,824,789
Estates, trust, and agency funds.....	3,126,058,749	494,636,746	3,620,695,495	3,282,568,672	543,933,754	3,826,542,326
Capital Stock—						
Authorized.....	53,175,000	34,650,000	87,825,000	53,275,000	34,650,000	87,925,000
Subscribed.....	28,960,910	15,252,370	44,213,280	28,877,360	15,473,600	44,350,960
Paid-up.....	28,701,960	14,739,987	43,441,947	28,813,610	15,132,221	43,945,831
Reserve and contingency funds.....	24,664,370	9,671,506	34,335,876	26,061,982	8,905,180	34,967,162
Unappropriated surpluses.....	5,454,086	1,691,141	7,145,227	5,422,648	1,508,437	6,931,085
Net profits realized during year.....	3,440,335	1,369,090	4,809,425	3,395,841	—30,458	3,365,383

¹ Excludes one loan company incorporated under the laws of Quebec, the capital stock and debentures of which have been issued largely outside Canada.

2.—Assets and Liabilities of Loan Companies, 1946-51

Item	Chartered by Government of Canada ¹					
	1946	1947	1948	1949	1950	1951
Assets	\$	\$	\$	\$	\$	\$
Real estate ²	5,210,485	4,935,971	4,943,594	5,266,696	5,604,342	6,571,189
Loans on real estate.....	73,238,639	79,292,340	93,301,864	111,574,957	124,199,351	136,720,021
Loans on securities.....	119,989	156,267	599,808	103,467	107,823	116,621
Bonds and debentures.....	47,282,419	47,527,308	43,902,301	39,797,131	33,877,064	33,674,081
Stocks.....	11,940,677	15,020,787	17,159,691	17,059,957	18,161,270	16,071,135
Cash.....	6,287,779	7,357,359	4,613,211	4,941,023	7,624,167	8,508,316
Totals, Assets³.....	145,016,997	155,117,857	165,261,293	179,795,977	190,733,017	203,103,850
Liabilities						
Liabilities to Shareholders—						
Capital paid up.....	17,584,585	17,929,296	17,980,206	18,043,255	20,606,187	18,419,587
Reserves.....	12,652,845	14,639,710	15,114,978	16,344,790	15,973,533	17,139,072
Total Liabilities to Shareholders ⁴	31,411,048	33,860,101	34,543,526	35,381,908	37,810,634	37,199,813
Liabilities to the Public—						
Debentures.....	58,438,590	60,201,118	62,008,012	69,075,197	71,803,927	86,603,723
Deposits.....	54,047,133	59,889,951	67,289,900	73,919,782	79,141,868	77,219,272
Total Liabilities to the Public ⁵	113,605,949	121,257,756	130,573,614	144,414,068	152,825,545	165,768,886
Totals, Liabilities.....	145,016,997	155,117,857	165,117,140	179,795,976	190,636,179	203,103,850
	Chartered by Provinces ⁶					
			1950		1951	
Assets			\$		\$	
Real estate ²			1,867,485		1,292,186	
Loans on real estate.....			45,744,265		49,788,615	
Loans on securities.....			732,072		1,065,738	
Bonds and debentures.....			30,861,995		31,461,663	
Stocks.....			6,566,586		2,298,699	
Cash.....			3,048,950		2,513,459	
Totals, Assets³.....			89,504,876		88,991,635	
Liabilities						
Liabilities to Shareholders—						
Capital paid up.....			16,081,176		10,374,952	
Reserves.....			9,541,353		10,494,902	
Total Liabilities to Shareholders ⁴			29,611,517		25,291,830	
Liabilities to the Public—						
Debentures.....			21,702,017		21,435,748	
Deposits.....			37,245,966		41,229,595	
Total Liabilities to the Public ⁵			59,893,359		63,699,805	
Totals, Liabilities.....			89,504,876		88,991,635	

¹ Includes companies chartered by the Government of Nova Scotia, which by arrangement are inspected by the Federal Department of Insurance. ² Book value of real estate for companies' use and other real estate. ³ Includes interest due and accrued and other assets. ⁴ Includes other liabilities to shareholders. ⁵ Includes other liabilities to the public. ⁶ Exclusive of Nova Scotia.

3.—Assets and Liabilities of Trust Companies, 1946-51

Item	Chartered by Government of Canada ¹					
	1946	1947	1948	1949	1950	1951
	\$	\$	\$	\$	\$	\$
Assets						
Company Funds—						
Real estate ²	1,571,466	1,644,909	2,291,721	2,391,234	2,599,598	2,597,501
Loans on real estate.....	5,208,488	4,703,905	4,581,282	5,438,683	5,875,800	6,005,025
Loans on securities.....	1,160,996	706,629	1,884,638	928,800	856,911	864,615
Bonds and debentures.....	9,560,785	9,703,279	11,262,394	10,435,037	11,187,960	11,741,048
Stocks.....	3,479,892	3,606,580	3,758,464	4,062,907	4,054,756	4,356,787
Cash.....	1,687,568	1,724,039	1,743,905	1,756,057	1,946,129	1,710,349
Totals, Company Funds ^{3,4}	23,699,397	23,421,857	25,788,543	26,244,735	27,988,873	28,446,331
Guaranteed Funds—						
Loans on real estate.....	20,193,684	26,448,775	29,211,299	32,563,611	37,860,933	43,401,633
Loans on securities.....	6,091,690	4,631,540	5,805,425	6,245,398	3,891,278	3,719,861
Bonds and debentures.....	32,063,319	34,772,852	40,022,366	46,332,850	44,734,539	40,955,188
Stocks.....	712,104	1,478,614	1,860,454	1,395,790	1,267,316	1,078,284
Cash.....	2,632,067	3,755,198	4,291,127	2,972,809	4,594,867	3,723,589
Totals, Guaranteed Funds ^{3,4}	62,184,103	71,660,444	81,845,528	90,111,500	93,082,706	93,565,917
Liabilities						
Company Funds—						
Capital paid up.....	13,666,595	13,333,408	14,459,414	14,535,022	14,739,987	15,132,221
Reserves.....	7,396,948	7,754,554	7,994,585	8,483,617	9,671,504	8,905,180
Totals, Company Funds ⁵	23,339,787	23,191,686	25,153,650	25,892,736	27,568,241	26,658,321
Guaranteed Funds—						
Principal.....	62,184,103	71,660,444	81,845,528	90,111,501	93,082,707	93,565,917
Totals, Guaranteed Funds.....	62,184,103	71,660,444	81,845,528	90,111,501	93,082,707	93,565,917
	Chartered by Provinces ⁶					
Assets	\$	\$	\$	\$	\$	\$
Company Funds—						
Real estate ^{2,4}	6,339,568	5,982,330	6,662,666	6,959,057	5,372,046	5,745,326
Loans on real estate ⁴	9,759,731	9,479,724	10,429,273	11,707,231	15,086,011	16,045,557
Loans on securities ⁴	4,765,892	3,789,193	5,112,362	4,010,537	5,677,620	8,002,620
Bonds and debentures ⁴	23,484,241	25,579,928	24,601,837	25,040,185	25,677,269	22,768,209
Stocks ⁴	12,259,940	11,344,958	12,875,927	12,725,583	13,215,469	14,887,436
Cash.....	4,514,703	4,403,126	2,888,357	3,406,003	3,788,458	3,198,260
Totals, Company Funds ³	64,587,553	64,100,014	65,639,018	68,188,785	72,736,140	74,399,404
Guaranteed Funds—						
Loans on real estate.....	35,434,313	36,281,680	43,391,744	48,414,936	55,235,907	63,050,583
Loans on securities.....	7,567,294	6,258,458	6,366,905	6,660,312	9,461,646	11,758,999
Bonds and debentures.....	103,647,928	117,895,259	128,182,839	141,713,565	166,622,452	166,796,191
Stocks.....	4,084,365	3,598,140	3,483,412	3,735,979	3,576,030	3,324,910
Cash.....	7,696,970	7,283,481	9,237,682	10,142,915	13,482,543	12,981,945
Totals, Guaranteed Funds ³	158,506,553	171,354,194	190,678,903	213,671,444	251,832,240	258,413,136
Liabilities						
Company Funds—						
Capital paid up.....	23,833,950	22,855,250	22,855,251	24,027,500	28,701,960	28,813,610
Reserves.....	22,399,023	24,351,314	24,724,995	26,177,783	24,664,370	26,061,982
Totals, Company Funds ⁵	64,454,323	64,103,013	65,639,021	68,188,784	72,333,416	74,399,405
Guaranteed Funds—						
Principal.....	158,506,553	171,354,194	190,678,903	213,671,444	247,480,875	258,413,136
Totals, Guaranteed Funds.....	158,506,553	171,354,194	190,678,903	213,671,444	247,480,875	258,413,136

¹ Includes companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba, which by arrangement are inspected by the Federal Department of Insurance.

² Book value of real estate for companies' use and other real estate.

³ Includes other company fund liabilities.

⁴ Includes interest due and accrued.

⁵ For the years 1946-49 chartered by the Provinces of Ontario and Quebec and for the years 1950 and 1951 chartered by all provinces except Nova Scotia, New Brunswick and Manitoba.

⁶ Includes interest due and accrued.

4.—Estates, Trust and Agency Funds of Trust Companies, Chartered by or Supervised by the Federal Government and by Provincial Governments, as at Dec. 31, 1942-51.

Year	Federal Companies ¹	Provincial Companies ²	Total	Year	Federal Companies ¹	Provincial Companies ²	Total
	\$	\$	\$		\$	\$	\$
1942.....	290,630,617	2,444,979,796	2,735,610,413	1947.....	480,931,822	2,735,930,892	3,216,862,714
1943.....	313,457,551	2,528,569,545	2,842,027,096	1948.....	520,860,737	2,791,584,378	3,312,445,115
1944.....	338,978,141	2,593,780,389	2,932,758,530	1949.....	560,080,611	2,827,988,797	3,388,069,408
1945.....	363,332,677	2,751,475,732	3,117,808,409	1950.....	494,636,746	3,126,058,749	3,620,695,495
1946.....	392,430,578	2,758,442,016	3,150,872,594	1951.....	543,983,751	3,282,558,573	3,826,542,327

¹ Includes companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba which by arrangement are inspected by the Federal Department of Insurance. ² Excludes provincial companies of Nova Scotia, New Brunswick and Manitoba which are included in federal companies.

Section 2.—Licensed Small Loans Companies and Licensed Money-Lenders

Incorporated by the Parliament of Canada, are four companies that make small loans, usually not exceeding \$500 each, on the promissory notes of the borrowers and secured additionally in most cases by endorsements or chattel mortgages. While these companies, under their original charter powers, were permitted to make loans on the security of real estate, that power was withdrawn by the Small Loans Act, 1939 (3 Geo. VI, c. 23).

Under legislation that came into force on Jan. 1, 1940, small loans companies and money-lenders licensed thereunder, making personal loans of \$500 or less, are limited to a rate of cost of loan not in excess of 2 p.c. per month on outstanding balances, and unlicensed lenders to a rate of 12 p.c. per annum, including interest and charges of every description.

5.—Assets and Liabilities of Small Loans Companies Chartered by the Federal Government, as at Dec. 31, 1945-50

NOTE.—Figures for the years 1928-32 will be found at p. 838 of the 1942 Year Book; those for the years 1933-38 at p. 988 of the 1946 edition; and those for 1939-44 at p. 1062 of the 1951 edition.

Assets and Liabilities	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$
Assets						
Loans receivable.....	13,354,915	20,307,530	24,425,312	36,533,501	43,718,071	51,864,421
Cash on hand and in banks..	734,583	377,813	1,073,419	3,800,365	1,821,982	1,771,505
Other.....	1,911,332 ¹	4,232,126 ²	7,144,612 ³	2,331,969	3,381,895	7,571,915
Totals, Assets.....	16,000,830	21,917,469	32,643,343	42,665,835	48,921,948	61,207,841
Liabilities						
Liabilities to Shareholders—						
General reserve.....	18,000	18,000	18,000	18,000	18,000	18,000
Reserve for losses.....	586,428	915,290	1,122,974	1,318,365	1,507,692	1,954,893
Capital paid up.....	3,965,000	4,155,000	4,555,000	4,565,000	4,565,000	4,565,000
Other liabilities.....	4,083,179	4,555,347 ⁴	4,428,560	4,148,179	4,230,110	4,410,809
Totals, Liabilities to Shareholders.....	8,652,607	9,613,637	10,124,534	10,049,544	10,320,802	10,948,692
Liabilities to the Public—						
Borrowed money.....	7,077,840	15,007,689	22,003,002	31,938,137	37,658,423	49,019,667
Other liabilities ⁵	270,383	260,629	510,292	672,639	937,207	1,233,966
Totals, Liabilities to the Public.....	7,348,223	15,268,318	22,513,294	32,610,776	38,595,630	50,253,633
Totals, Liabilities.....	16,000,830	21,917,469 ⁶	32,643,343 ⁶	42,665,835 ⁶	48,921,948 ⁶	61,207,840 ⁶

¹ Includes \$250,000 bonds and \$1,534,756 balances of loans made in amounts greater than \$500. ² Includes \$4,046,210 balances of loans in amounts greater than \$500. ³ Includes \$6,762,669 balances of loans in amounts greater than \$500. ⁴ Includes business other than small loans. ⁵ Includes taxes. ⁶ Includes \$5,515 premium on capital stock.

The small loans companies chartered by the Federal Government showed a substantial increase in business for 1950 as compared with the previous year. The number of loans made to the public during the year increased from 434,710 to 521,701 or by 20 p.c. and the amount of such loans rose from \$86,303,395 to \$105,746,067. The average loan was approximately \$203 in 1950 compared with \$199 in 1949. At the end of 1950, loans outstanding numbered 339,020 for an amount of \$51,864,421 or an average of \$153 per loan.

Licensed Money-Lenders.*—In addition to the above-mentioned small loans companies, 56 licensed money-lenders furnished annual statements of their business showing, for 1950, total assets of \$27,321,717 of which balances of small loans amounted to \$6,742,511, other balances to \$19,091,024, bonds, debentures and stocks to \$221,718, real estate to \$67,895, cash to \$607,019 and other assets to \$591,550. Liabilities amounted to \$27,321,718, of which borrowed money accounted for \$19,007,830 and paid shares and partnership capital for \$3,570,081. Loans made during the year numbered 64,971 for an amount of \$13,549,304, an average of \$209. At the end of the year there were 46,328 loans outstanding with a total value of \$6,742,511. Of the loans made, 60 p.c. were between \$100 and \$300 and 12 p.c. were between \$400 and \$500.

Section 3.—Sales of Canadian Bonds†

Previous editions of the Year Book have traced the sales of Canadian bonds through the periods of two world wars and, in the post-war years, to the conclusion of financing in 1949. In the 1950 edition, at pp. 1088-1094, a detailed account was published of "The Underwriting and Distribution of Investments and their Influence on the Capital Market in Canada". The present edition brings the tables for sales of and applications for Government of Canada bonds, and sales of Canadian bonds, by class of bond and country of sale, to the end of 1951, with particular reference to significant developments on Canadian bond markets in that year.

For 1951, public bond financing totalled \$1,617,768,837 compared with \$3,153,440,453 for 1950. The 1951 aggregate includes sales of Canada Savings Loan Series 6, to Mar. 31, 1952, only, whereas figures for previous issues include totals for the entire savings loans flotations to the closing dates in the subsequent years (see Table 5). When complete figures are available for the Canada Savings Loan of 1951, however, the total aggregate financing in that year will still be much less than the total for 1950.

Not only did a marked decline take place in the dollar totals of bond sales in 1951 but important changes also occurred in the price levels of Canadian Government, municipal and corporation securities. Early in March, Government anti-inflationary credit policies led to a sharp decline and, with a lower market price, bond yields began to climb. At the year-end, long-term bonds of the Government of Canada sold at a yield of approximately 3.40 p.c., representing an increase of more than two-fifths of 1 p.c. during the year. In addition, new bond issues of governments and corporations were offering a significantly higher interest return while other classes of bonds experienced changes, ranging as high as 1 p.c. in the case of municipals.

* Further details are given in the Department of Insurance report, *Small Loans Companies and Money-Lenders* for the year ended Dec. 31, 1950.

† Prepared by E. C. Gould, Financial Editor, *The Monetary Times*.

While the total of Canadian bond sales declined in 1951, the amount sold in the United States continued to increase. Development of the United States market has shown a marked upward trend since 1947 when the Canadian bond market was absorbing virtually all of the new bond financing. For example, the total of Canadian issues sold in the United States was \$88,311,000 in 1947, \$150,000,000 in 1948, \$140,000,000 in 1949, \$172,700,000 in 1950 and \$384,023,000 in 1951. Of the 1951 total, \$253,015,000 was for provincial issues, \$73,508,000 was for municipals and \$57,500,000 represented corporation borrowing.

Most of the Government of Canada financing during 1951, as in previous years, was not in the nature of direct offerings to the general public. For this reason, the totals for treasury bills, deposit certificates and other financing for a term of less than one year, have been excluded from the totals of bond sales. One notable exception to this trend in federal financing was Canada Savings Loan Series 6 bonds. In respect to the payroll division of this flotation, it is noteworthy that the number of individual subscriptions was well represented.

In 1951, provincial and guaranteed flotations totalled \$369,532,000, a decrease of \$4,292,500 from the \$373,824,500 total for the previous year. With the exception of the Province of Alberta, all provinces entered the market in 1951, as follows:—

<i>Month</i>	<i>Province</i>	<i>Amount</i>	<i>Month</i>	<i>Province</i>	<i>Amount</i>
January.....	Saskatchewan.....	\$ 3,000,000	September.....	Ontario.....	\$ 50,000,000
January.....	Saskatchewan.....	3,000,000	September.....	New Brunswick.....	3,427,000
February.....	New Brunswick.....	13,360,000	October.....	Manitoba.....	9,600,000
February.....	Saskatchewan.....	1,875,000	October.....	Nova Scotia.....	15,000,000
March.....	Quebec.....	50,000,000	October.....	Manitoba.....	7,500,000
May.....	Saskatchewan.....	4,150,000	December.....	Ontario.....	50,000,000
May.....	Ontario.....	50,000,000	December.....	New Brunswick.....	10,000,000
June.....	New Brunswick.....	5,000,000	December.....	Saskatchewan.....	5,000,000
June.....	Manitoba.....	10,400,000	December.....	Prince Edward Island.....	2,500,000
July.....	Nova Scotia.....	7,000,000			
August.....	British Columbia.....	35,000,000	TOTALS.....		<u>\$335,812,000</u>

The remainder of the \$369,532,000 in provincial and guaranteed financing for 1951 was for municipal issues that were provincially guaranteed and for provincial hydro developments. Of the former classification, a total of \$645,000 was borrowed by five municipalities in Newfoundland during the month of November, all these issues being guaranteed by the Province of Newfoundland. The municipalities concerned were the towns of Fortune (\$115,000), Grand Banks (\$200,000), Harbour Grace (\$50,000), and Lewisporte (\$120,000), and the rural district of Springdale Southbrook (\$160,000).

An over-all reduction in bond sales in 1951 was caused principally by decreased borrowings by the Government of Canada which had large refunding operations in the previous year. For example, municipal financing totalled \$196,438,916 for 1951, exclusive of a total of \$37,967,921 for parochial and miscellaneous purposes (chiefly for schools and hospitals). These totals compared with \$150,369,281 and \$30,466,369, respectively, for 1950. The largest single amount borrowed by any one municipality during 1951 was represented by a flotation of the City of Toronto, through three serial issues in May, totalling \$20,000,000 and sold in the United States. There were also substantial borrowings in the New York market by other principal Canadian cities, including Ottawa, Hamilton, Edmonton, Quebec and Vancouver.

Corporation financing during 1951 totalled \$451,630,000, an increase of \$20,449,697 from the \$431,180,303 total of 1950, reflecting the continued high value of new capital investment in plant and equipment which has characterized the Canadian economy in the post-war years. Many of the corporation issues were widely distributed and quickly taken up by investors. One of the most interesting features in the corporation classification of bond sales was an issue of the Trans Mountain Oil Pipe Line which sold \$30,000,000 in Canada and \$35,000,000 in the United States. Purpose of the issue was to provide a part of the capital necessary for the construction of an oil pipe line from Alberta to the Pacific Coast.

The largest issue in 1951 of any concern engaged in the transportation industry was the \$30,000,000, 3½ p.c., 15-year, convertible debentures of the Canadian Pacific Railway. Since the Canadian National Railways made an arrangement to have funds provided by the Government of Canada, it was not, as in previous years, a large borrower in the open market. Equipment trust certificates, however, were sold by the Canadian National Railways and the Superior Rolling Stock Company. These issues totalled \$13,500,000 and \$1,200,000, respectively.

The Monetary Times records indicate that 26 provincial and guaranteed issues, 564 municipal issues (including parochial and miscellaneous) and 79 corporation issues were placed during 1951. Thus, the average of provincial and guaranteed issues was \$14,212,769, the average of municipal issues (including parochial and miscellaneous) was \$415,615 and the average of corporation issues was \$5,716,836. The average total of all issues sold, during 1951, was \$6,781,740 (excluding Government of Canada flotations, since complete figures were not available, at time of writing, for the Sixth Savings Loan).

6.—Sales of and Applications for Federal Government Bonds, Feb. 1, 1940, to Nov. 1, 1951

Type and Date of Loan	Purchases by Individuals	Purchases by Corporations	Total Cash Sales	Applications
	\$'000	\$'000	\$'000	No.
War Loans—				
Feb. 1, 1940.....	132,000	68,000	200,000	178,363
Oct. 1, 1940.....	113,000	187,000	300,000	150,890
Victory Loans—				
June 15, 1941.....	279,500	450,900	730,400	968,259
Mar. 1, 1942.....	335,600	507,500	843,100	1,681,267
Nov. 1, 1942.....	374,600	616,800	991,400	2,032,154
May 1, 1943.....	529,500	779,200	1,308,700	2,668,420
Nov. 1, 1943.....	599,700	775,300	1,375,000	3,033,051
May 1, 1944.....	641,500	763,500	1,405,000	3,077,123
Nov. 1, 1944.....	766,400	751,200	1,517,600	3,327,315
May 1, 1945.....	836,300	732,600	1,563,619 ¹	3,178,275
Nov. 1, 1945.....	1,221,342	801,132	2,027,487 ¹	2,947,636
Savings Loan—²				
Nov. 1, 1946.....	535,285,550	—	535,285,550	1,248,444
Nov. 1, 1947.....	287,733,100	—	287,733,100	910,742
Nov. 1, 1948.....	260,491,150	—	260,491,150	862,686
Nov. 1, 1949.....	320,200,000	—	320,200,000	1,015,579
Nov. 1, 1950.....	285,600,000	—	285,600,000	963,048
Nov. 1, 1951.....	362,200,000	—	362,200,000	910,831

¹ Department of Finance figures.

² Total subscriptions were limited to \$2,000 for any one individual for the 1946 issue, \$1,000 for the issues of 1947-50, inclusive, and \$5,000 for the issue of 1951. Figures for the issues 1946 to 1950 inclusive, are for the entire loans, i.e., to the closing dates of the subsequent years. Dollar total for the Sixth Savings Loan of 1951 are to Mar. 31, 1952, but the number of applications has been calculated to Nov. 30, 1951.

7.—Sales of Canadian Bonds, by Class of Bond and Country of Sale, 1942-51

(From the *Monetary Times Annual*)

NOTE.—Figures for the years 1904-25, inclusive, are given in the 1933 Year Book, p. 921, and for 1926-41 in the 1946 edition, pp. 990-991.

Year	CLASS OF BOND					
	Federal ¹	Provincial	Municipal	Parochial and Miscellaneous	Corporation	Total
	\$	\$	\$	\$	\$	\$
1942.....	2,431,074,400	96,860,000	23,563,905	—	13,988,350	2,565,486,655
1943.....	3,670,028,290	97,632,000	14,228,986	20,406,300	53,055,500	3,855,350,986
1944.....	3,400,963,900	67,153,500	113,225,635	10,612,100	92,063,900	3,684,019,035
1945.....	3,577,691,000	162,002,084	30,430,210	10,952,500	153,900,000	3,934,975,794
1946.....	985,285,550	114,296,800	140,815,491	43,155,800	581,499,188	1,865,052,829
1947.....	293,333,100	229,562,000	238,887,410	14,968,600	379,674,500	1,156,425,610
1948.....	445,491,150	312,619,500	84,014,291	21,010,000	310,506,000	1,173,640,941
1949.....	790,200,000 ^r	449,347,000	134,796,184	23,853,200	285,268,000	1,683,464,384 ^r
1950.....	2,167,600,000	373,824,509	150,369,281	30,466,369	431,180,303	3,153,440,453
1951.....	562,200,000	369,532,000	196,438,916	37,967,921	451,630,000	1,617,768,837

Year	DISTRIBUTION OF SALES, BY COUNTRIES			
	Sold in Canada	Sold in United States	Sold in United Kingdom	Total
	\$	\$	\$	\$
1942.....	2,549,748,655	15,738,000	—	2,565,486,655
1943.....	3,729,229,986	126,121,000	—	3,855,350,986
1944.....	3,629,004,035	55,015,000 ²	—	3,684,019,035
1945.....	3,854,957,794	80,018,000	—	3,934,975,794
1946.....	1,801,400,829	63,652,000	—	1,865,052,829
1947.....	1,068,114,610	88,311,000	—	1,156,425,610
1948.....	1,023,640,941	150,000,000	—	1,173,640,941
1949.....	1,543,464,384 ^r	140,000,000	—	1,683,464,384 ^r
1950.....	2,980,740,453	172,700,000	—	3,153,440,453
1951.....	1,233,745,837	384,023,000	—	1,617,768,837

¹ Not including treasury bills, deposit certificates and other financing for a term of less than one year.² Not including bonds purchased by Canadian dealers and later sold in the United States.

CHAPTER XXVI.—INSURANCE*

CONSPECTUS

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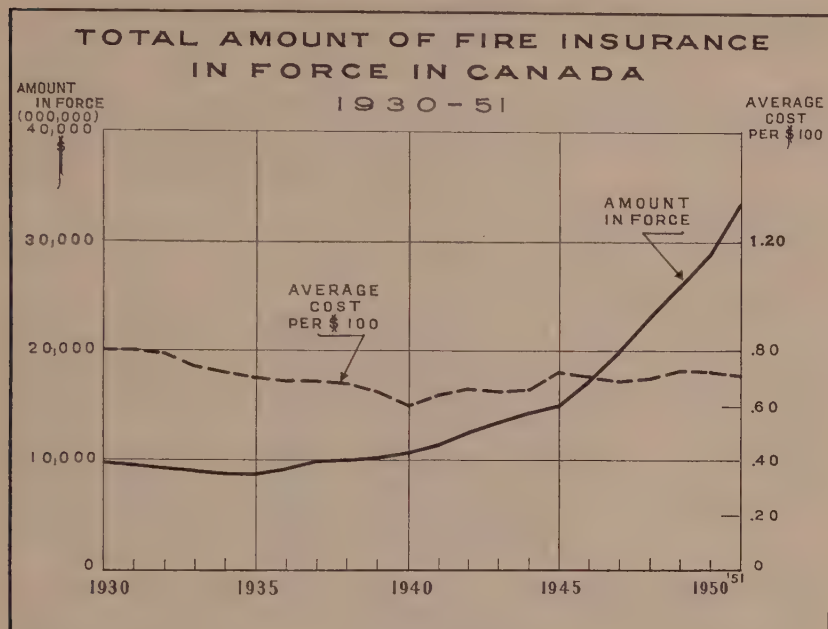
NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Insurance, for the purpose of statistical analysis, is usually classified as fire, life and casualty. Most companies operate under Federal Government (Dominion) registration although some have provincial licences only. Many fraternal orders and societies, too, are engaged in this kind of business. An extended treatment of the salient features of the legislation covering insurance in general and the fields of federal and provincial jurisdiction will be found in the 1941 Year Book at pp. 844-846. In the 1942 Year Book, at pp. 842-846, a Special Article is given on the developments in fire and casualty insurance in Canada between 1931 and 1940, consequent upon the enactment of the three Insurance Acts of 1932, while another article on insurance as it affects the balance of international payments appears at pp. 870-871 of the same edition. The 1947 Year Book, at pp. 1064-1074, includes the Special Article, "Insurance in Canada during the Depression and War Periods".

Section 1.—Fire Insurance

In Canada, fire insurance began with the establishment of agencies by British fire insurance companies. These were situated usually at the seaports and operated by local merchants. The oldest existing agency of such a company commenced business at Montreal in 1804. The first Canadian company dates from 1809 and the first United States company to operate in Canada commenced business in 1821. A short account of the inception of fire insurance in Canada is given at pp. 846-847 of the 1941 Year Book.

* Material in this Chapter, except where otherwise indicated, has been revised under the direction of R. W. Warwick, Superintendent of Insurance, Department of Insurance, Ottawa.



The report of the Superintendent of Insurance for the year ended Dec. 31, 1951, shows that, at that date, there were 277 fire insurance companies under Federal registration; of these, 68 were Canadian, 83 were British and 126 were foreign companies. In 1875, the first year for which authentic records were collected by the Department of Insurance, 27 companies operated in Canada—11 Canadian, 13 British and 3 United States. The proportionate increase in the number of British and foreign companies from 59 p.c. to 75 p.c. of the total number is a very marked point of difference between the fire and life insurance businesses in Canada, the latter being carried on very largely by Canadian companies.

Subsection 1.—Total Registered Fire Insurance in Canada

Of the total amount of insurance effected in Canada during each year, a part is sold by the companies holding provincial licences and permits. Such companies generally confine their operations to the province of incorporation but may be allowed to sell insurance in other provinces.

Fire insurance, as shown in Table 1, accounts for approximately 91 p.c. of the insurance in force. In the more detailed analyses of fire insurance given in Table 2, the statistics cover only the operations of companies with Federal Government registration.

1.—Fire Insurance in Canada, 1949-51

Item	Gross Insurance Written	Net in Force at End of Year	Net Premiums Written	Net Claims Incurred
	\$	\$	\$	\$
Federal Government Registrations. 1949	24,309,905,696	25,969,411,755	103,915,903	46,552,575
1950	27,512,042,537	28,957,395,702	115,648,449	58,524,685
1951 ^p	33,314,945,698	33,493,682,527	134,489,297	52,062,710
Provincial Licensees—				
(a) Provincial companies within provinces by which they are incorporated..... 1949	1,480,617,785	2,162,813,725	8,873,336	5,011,556
1950	1,630,890,154	2,278,457,679	9,134,097	5,384,254
1951 ^p	1,555,864,126	2,274,695,036	9,193,319	4,963,057
(b) Provincial companies within provinces other than those by which they are incorporated.. 1949	180,551,710	215,207,194	1,308,368	738,261
1950	215,453,686	240,699,605	1,385,453	844,378
1951 ^p	118,607,835	161,443,644	944,069	472,779
Totals, Provincial Licensees.. 1949	1,661,169,495	2,378,050,919	10,181,704	5,749,817
1950	1,846,343,840	2,519,157,284	10,519,555	6,228,632
1951 ^p	1,674,471,961	2,436,138,680	10,137,388	5,435,836
Lloyds, London..... 1949	541,504,946	625,809,337	4,595,309	2,499,365
1950	649,939,702	755,858,745	4,982,644	3,545,823
1951 ^p	831,670,172	904,488,934	5,939,298	2,791,796
Grand Totals..... 1949	26,512,580,137	28,971,272,011	118,692,916	54,801,757
1950	30,008,326,079	32,232,411,731	131,150,648	68,300,140
1951 ^p	35,821,067,831	36,834,310,141	150,565,983	60,290,342

Subsection 2.—Operational Statistics of Registered Fire Insurance Companies

The trend in the average rate payable for fire insurance has been generally downward, although the increases in fire losses in recent years have had the effect of checking that tendency. The increase in value of insurable buildings and their contents tends to increase fire insurance premiums despite the trend of the average rate.

2.—Fire Insurance, by Companies Operating under Federal Government Registration, Decennially 1880-1940 and 1941-51

NOTE.—Figures for the years 1889-99 are given at p. 973 of the 1939 Year Book, and figures for 1901-39 at p. 847 of the 1942 edition.

Year	Amount in Force at End of Year	Net Premiums Written During Year	Net Claims Incurred During Year	Percentage of Claims to Premiums	Gross Amount of Risks Taken During Year	Premiums Charged Thereon	Average Cost per \$100 of Insurance
	\$	\$	\$	p.c.	\$	\$	\$
1880.....	411,563,271	3,470,577 ¹	1,666,578 ²	47-90	384,051,861	3,958,437	1-03
1890.....	720,679,621	5,836,071 ¹	3,266,567 ²	55-97	620,723,945	7,019,319	1-13
1900.....	992,332,360	8,331,948 ¹	7,774,293 ²	93-31	803,428,654	10,081,735	1-25
1910.....	2,034,276,740	18,725,531 ¹	10,292,393 ²	54-96	1,817,055,685	24,684,296	1-36
1920.....	5,969,872,278	50,527,937 ¹	21,935,387 ²	43-41	6,790,670,610	71,143,917	1-05
1930.....	9,672,996,973	52,646,520	30,427,968	57-71	10,311,193,608	82,700,147	0-80
1940.....	10,737,568,226	41,922,312	15,444,927	36-84	12,072,174,014	72,682,679	0-60
1941.....	11,386,819,286	49,305,539	17,814,322	36-13	13,345,610,185	85,877,380	0-64
1942.....	12,565,212,694	47,272,440	20,360,531	43-07	12,759,419,939	84,168,663	0-66
1943.....	13,386,782,873	47,153,091	22,181,214	47-04	12,838,807,204	84,047,821	0-65
1944.....	14,174,130,630	55,027,051	28,921,930	52-56	14,572,876,024	96,065,279	0-66
1945.....	15,054,848,612	58,335,728	30,588,357	52-43	10,096,447,893 ³	72,872,125	0-72
1946.....	17,376,429,865	68,825,470	35,379,627	51-40	11,741,234,245 ³	82,696,662	0-70
1947.....	19,926,683,282	86,771,952	39,513,014	45-54	15,452,832,219 ³	106,427,978	0-69
1948.....	23,021,215,478	98,191,514	45,143,565	45-98	16,986,228,866 ³	119,222,396	0-70
1949.....	25,970,407,358	103,809,769	46,548,822	44-84	17,618,541,153 ³	129,711,596	0-73
1950.....	24,957,395,702	115,618,419	58,524,685	50-61	19,870,295,002	143,661,997	0-72
1951 ^p	33,493,682,527	134,489,297	52,062,710	38-71	22,908,658,097	162,547,759	0-71

¹ Net premiums received.

² Net claims paid.

³ Not comparable with 1944 and previous years since this figure indicates "Gross direct written", disregarding all reinsurance, assumed or ceded.

Premiums Written and Claims Incurred.—The relationship of claims incurred to premiums written is shown in Table 3 for Federal Government registered companies, by provinces.

3.—Net Premiums Written and Net Claims Incurred in Canada by Canadian, British and Foreign Companies Operating under Federal Government Registration, by Provinces, 1949-51.

(Registered reinsurance deducted)

Year and Province	Canadian Companies		British Companies		Foreign Companies	
	Premiums	Claims	Premiums	Claims	Premiums	Claims
1949	\$	\$	\$	\$	\$	\$
Newfoundland.....	123,534	21,427	938,410	211,683	353,549	57,660
Prince Edward Island.....	115,744	59,180	293,197	137,149	142,688	44,438
Nova Scotia.....	1,170,279	404,498	2,116,695	810,582	1,125,597	369,578
New Brunswick.....	899,063	374,729	2,103,734	824,926	1,138,396	440,876
Quebec.....	7,038,028	3,180,102	11,663,885	5,526,243	11,942,343	5,139,114
Ontario.....	10,279,021	1,351,337	13,425,131	5,959,262	14,731,475	6,175,064
Manitoba.....	2,251,717	1,040,657	1,685,388	553,690	1,706,170	541,277
Saskatchewan.....	1,894,595	621,368	1,116,877	565,077	1,521,252	694,631
Alberta.....	2,286,509	1,192,860	2,437,210	1,628,421	2,550,595	2,002,540
British Columbia.....	2,292,560	1,103,994	4,583,286	2,135,653	4,682,330	2,324,405
All other Canada ¹	191,873	15,024	504,462	131,458	—399,406	108,031
Canada, 1949.....	28,542,953	12,365,236	40,868,275	18,484,144	39,497,989	17,897,614
1950						
Newfoundland.....	173,102	57,569	950,742	304,796	365,634	114,538
Prince Edward Island.....	129,989	39,835	303,974	126,890	144,634	48,518
Nova Scotia.....	1,280,883	635,880	2,248,082	1,233,216	1,219,328	693,210
New Brunswick.....	875,386	498,494	2,023,246	885,672	1,183,989	565,695
Quebec.....	8,109,504	5,541,051	13,433,547	8,813,608	13,246,467	7,812,270
Ontario.....	11,297,486	5,117,230	15,534,653	7,013,929	16,546,016	6,692,907
Manitoba.....	2,406,526	1,410,527	1,859,416	1,235,788	1,957,594	1,266,048
Saskatchewan.....	1,955,535	638,302	1,168,464	423,548	1,627,032	522,837
Alberta.....	2,364,078	1,208,627	2,857,197	1,703,268	2,839,457	1,448,845
British Columbia.....	2,568,376	1,090,505	4,981,352	2,280,281	5,411,102	2,603,497
All other Canada ¹	74,420	26,655	231,217	73,201	60,649	9,069
Canada, 1950.....	31,235,285	16,264,675	45,591,890	24,094,197	44,601,952	21,777,434
1951²						
Newfoundland.....	185,988	80,795	960,520	348,640	334,902	135,734
Prince Edward Island.....	141,048	71,628	343,570	233,333	186,593	93,600
Nova Scotia.....	1,434,634	419,638	2,572,556	1,108,057	1,496,841	376,539
New Brunswick.....	1,053,075	361,406	2,344,848	860,273	1,486,941	534,338
Quebec.....	9,171,860	4,164,293	14,660,394	6,641,356	16,177,434	5,643,442
Ontario.....	13,012,539	5,363,391	17,478,097	7,339,859	20,416,779	7,658,639
Manitoba.....	2,896,603	1,027,026	2,397,945	878,589	2,389,456	661,856
Saskatchewan.....	2,683,576	758,001	1,418,564	402,738	1,755,516	822,527
Alberta.....	2,840,539	1,256,671	3,337,828	1,608,604	3,351,822	1,329,560
British Columbia.....	3,057,452	956,002	5,625,153	1,706,213	6,358,719	1,487,938
All other Canada ¹	60,182	58,082	260,858	292,482	122,767	282,748
Canada, 1951.....	36,537,496	14,516,933	51,400,333	24,419,544	54,077,770	19,026,921

¹ Includes the Yukon and Northwest Territories, also certain 'floater business' that cannot be apportioned to any one province.

Classification of Fire Risks.—For some years the Department of Insurance has compiled, from information supplied by the fire insurance companies registered to transact business in Canada, tables of experience as to premiums and claims by 27 classes of risks agreed upon on the basis of net premiums written, less registered or licensed reinsurance. This experience for the years 1940-44 is given at p. 1077 of the 1947 Year Book. The returns from 1945 were received on a 'direct written' basis, excluding all reinsurance ceded or assumed, and the classification was changed and reduced to 21 classes. The 1949-51 experience is given in Table 4.

4.—Percentages of Claims Incurred to Premiums Written in Canada, by All Companies Operating under Federal Government Registration, by Classes of Risks, 1949-51

(Excluding all reinsurance ceded or assumed)

Class of Risk	1949	1950	1951 ^a	Class of Risk	1949	1950	1951 ^a
	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.
Dwellings, excluding farms—				Lumber yards, pulpwood and			
Protected brick.....	41.54	53.10	50.08	standing timber.....	23.55	56.09	17.73
Protected frame.....	32.63	47.11	35.00	Wood-working plants.....	49.46	39.22	40.41
Unprotected.....	38.17	57.86	39.47	Metal-working plants, garages			
Farm buildings.....	58.83	62.74	48.26	and hangars.....	37.90	65.48	45.83
Churches, public buildings, edu-				Mining risks.....	57.90	110.11	52.69
cational and social-service in-				Railway and public utility risks	55.27	43.03	33.10
stitutions.....	64.92	54.47	46.00	Miscellaneous manufacturing			
Warehouses.....	52.97	45.50	33.25	risks.....	66.13	67.23	48.63
Retail stores, office buildings,				Miscellaneous non-manufactur-			
banks and hotels.....	49.83	52.46	52.23	ing risks.....	57.12	48.71	43.30
Contents of above item.....	49.20	51.74	49.14	Sprinklered risks of whatever			
Foods, food and beverage plants.	42.27	56.88	37.28	nature or occupancy.....	30.16	35.76	23.03
Flour and cereal mills, grain				Use and occupancy and profits,			
elevators.....	35.88	38.58	28.54	excluding rental insurance....	64.47	74.58	32.57
Oil risks of all kinds.....	105.97	40.59	34.27				
Saw and shingle mills.....	56.78	40.75	54.06	Averages.....	45.03	51.54	40.24

Subsection 3.—Finances of Fire Insurance Companies

Tables 5 to 7 show the assets, liabilities, income and expenditure of registered companies transacting fire insurance in Canada from 1947-51. The majority of fire insurance companies also transact casualty insurance dealt with in Section 3 of this Chapter. Totals only are given here because it is impossible for such companies to allocate their assets and liabilities and their general income and expenditure among the various types of business transacted. Table 28, p. 1157, gives similar information for registered companies whose transactions are confined to casualty insurance.

5.—Assets of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Federal Government Registration, 1947-51

Assets	1947	1948	1949	1950	1951 ^a
	\$	\$	\$	\$	\$
Canadian Companies (In All Countries)					
Real estate.....	2,142,439	1,883,576	2,010,983	2,890,580	4,984,936
Loans on real estate.....	2,742,931	3,791,417	4,342,568	4,503,686	4,638,405
Bonds, debentures and stocks.....	108,937,001	119,677,619	134,327,602	146,468,315	157,469,969
Agents' balances and premiums out-					
standing.....	10,803,637	12,376,656	13,408,599	15,864,962	18,090,391
Cash.....	16,296,234	16,263,610	17,118,676	17,768,620	20,297,453
Interest and rents.....	741,893	820,022	924,946	1,011,235	1,166,124
Other assets.....	5,489,658	6,238,104	7,728,925	9,985,911	9,577,554
Totals, Canadian Companies.....	147,153,798	161,051,904	179,860,599	198,493,309	216,224,832
British Companies (In Canada)					
Real estate.....	940,296	805,431	856,789	961,944	1,181,210
Loans on real estate.....	29,750	31,826	85,699	164,226	302,606
Bonds, debentures and stocks.....	60,908,309	73,417,851	87,688,448	97,514,151	104,082,479
Agents' balances and premiums out-					
standing.....	7,915,624	9,626,437	10,776,448	12,954,003	14,205,697
Cash.....	10,884,344	13,130,958	12,513,073	13,221,377	15,713,706
Interest and rents.....	223,552	259,163	347,294	392,966	455,242
Other assets in Canada.....	2,016,777	2,358,793	2,234,250	2,372,038	2,274,929
Totals, British Companies.....	82,918,652	99,630,459	114,502,006	127,580,705	138,215,869

5.—Assets of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Federal Government Registration, 1947-51
—concluded

Assets	1947	1948	1949	1950	1951 ^p
	\$	\$		\$	\$
Foreign Companies (In Canada)					
Real estate.....	—	—	—	—	—
Loans on real estate.....	7,750	—	—	—	2,500
Bonds, debentures and stocks.....	60,138,599	64,043,174	71,122,550	78,612,365	97,174,209
Agents' balances and premiums outstanding.....	6,475,163	7,153,174	7,513,224	8,825,587	10,797,279
Cash.....	17,435,233	17,957,749	19,102,039	19,236,339	20,148,111
Interest and rents.....	336,804	372,922	415,671	454,347	614,699
Other assets in Canada.....	1,224,567	803,510	854,642	1,036,804	912,190
Totals, Foreign Countries.....	83,618,116	90,330,529	99,008,126	108,165,442	129,648,988

6.—Liabilities of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Federal Government Registration, 1947-51.

Liabilities	1947	1948	1949	1950	1951 ^p
	\$	\$	\$	\$	\$
Canadian Companies (In All Countries)					
Reserves for unsettled claims.....	18,651,082	21,190,575	24,392,136	28,705,334	33,437,225
Reserves of unearned premiums.....	36,393,343	42,256,644	48,652,678	54,957,195	61,167,831
Sundry items.....	20,491,145	22,623,329	26,801,982	30,700,595	34,811,376
Totals, Canadian Companies.....	75,535,570	86,070,548	99,846,796	114,363,124	129,416,432
Excess of assets over liabilities.....	71,618,228	74,981,356	80,013,803	84,130,185	86,808,400
Capital stock paid up.....	18,900,240	19,975,290	20,334,030	20,972,569	21,720,941
British Companies (In Canada)					
Reserves for unsettled claims.....	12,157,329	14,837,703	16,366,220	21,082,932	24,128,470
Reserves of unearned premiums.....	34,282,841	41,347,782	46,019,748	51,689,258	58,522,636
Sundry items.....	3,640,009	3,906,719	5,107,582	6,084,969	6,993,449
Totals, British Companies.....	50,080,179	60,092,204	67,493,550	78,857,159	89,644,605
Excess of assets over liabilities.....	32,838,473	39,538,255	47,008,456	48,723,546	48,571,264
Foreign Companies (In Canada)					
Reserves for unsettled claims.....	7,336,841	7,512,738	8,117,476	12,433,787	16,596,664
Reserves of unearned premiums.....	32,571,249	37,523,198	39,884,410	46,992,433	52,646,334
Sundry items.....	3,944,926	4,208,733	4,511,813	4,857,331	10,625,234
Totals, Foreign Companies.....	43,853,016	49,244,669	52,513,699	64,283,556	79,868,232
Excess of assets over liabilities, excluding capital.....	41,765,100	41,085,860	46,494,427	43,881,886	49,780,756

7.—Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Federal Government Registration, 1947-51.

Income and Expenditure	1947	1948	1949	1950	1951 ^p
	\$	\$	\$	\$	\$
INCOME					
Canadian Companies (In All Countries)					
Net premiums written, fire and other insurance.....	64,540,012	74,535,604	85,967,103	94,957,384	108,123,353
Interest, dividends and rents earned.....	3,739,661	4,001,600	4,519,974	5,064,567	5,565,004
Sundry items.....	78,056	44,105	33,971	137,975	69,074
Totals, Canadian Companies.....	68,357,729	78,581,309	90,521,048	100,159,926	113,757,431
British Companies (In Canada)					
Net premiums written.....	56,037,195	67,350,314	75,168,266	84,262,573	95,578,088
Interest, dividends and rents earned.....	897,526	998,392	1,152,406	1,402,786	1,588,046
Sundry items.....	2,205	578	609	484	1,080
Totals, British Companies.....	56,936,926	68,349,284	76,321,281	85,665,843	97,167,214
Foreign Companies (In Canada)					
Net premiums written.....	52,068,110	54,116,615	55,433,534	65,299,390	88,814,362
Interest, dividends and rents earned.....	1,551,139	1,651,818	1,733,103	1,897,135	2,387,144
Sundry items.....	12,320	2,051	—12,727	15,541	2,909
Totals, Foreign Companies.....	53,631,569	55,770,484	57,153,910	67,212,066	91,204,415
EXPENDITURE					
Canadian Companies (In All Countries)					
Incurred for claims (fire).....	10,608,241	13,068,129	12,981,810	15,862,354	15,234,667
General expenses (fire).....	10,987,221	12,174,865	13,105,812	14,324,556	15,858,958
Incurred for claims (casualty).....	19,118,640	22,181,197	26,516,801	30,978,046	39,033,406
General expenses (casualty).....	15,591,761	17,858,019	19,489,615	21,840,069	25,670,189
Dividends or bonuses to shareholders.....	1,509,757	1,532,918	1,875,511	1,994,347	2,163,563
Premium taxes and fees.....	1,687,932	1,903,907	2,206,998	2,402,244	2,746,286
Income tax.....	785,938	1,014,953	1,621,510	1,573,799	2,676,664
Excess profits tax.....	51,779	1,687	—19,612	1,064	—
Provincial corporation income tax.....	46,868	59,488	87,374	90,506	155,588
Dividends to policyholders.....	125,924	199,191	411,938	238,828	337,463
British and foreign taxes.....	443,171	243,007	512,165	480,858	429,641
Totals, Canadian Companies.....	61,057,232	70,237,391	78,789,925	89,786,671	104,306,425
Excess of income over expenditure.....	7,300,497	8,343,918	11,731,123	10,373,255	9,451,006
British Companies (In Canada)					
Incurred for claims (fire).....	14,135,918	16,926,631	18,484,144	24,094,197	21,419,544
General expenses (fire).....	13,196,440	15,631,756	16,867,513	18,796,326	21,321,205
Incurred for claims (casualty).....	11,938,185	14,929,786	16,071,566	19,016,349	24,492,276
General expenses (casualty).....	9,881,251	11,308,613	12,874,637	14,634,521	16,678,918
Premium taxes and fees.....	1,551,083	1,722,769	1,981,533	2,165,783	2,457,194
Income tax.....	175,255	129,250	342,216	270,200	723,492
Excess profits tax.....	7,599	—32,943	15	—787	—
Provincial corporation income tax.....	5,846	24,458	12,555	8,569	23,314
Totals, British Companies.....	50,894,610	60,640,320	66,634,179	78,985,158	87,115,943
Excess of income over expenditure.....	6,012,316	7,708,964	9,687,102	6,680,685	10,051,271

For footnotes, see end of table, p. 1139.

7.—Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Federal Government Registration, 1947-51—concluded.

Income and Expenditure	1947	1948	1949	1950	1951 ^p
	\$	\$	\$	\$	\$
EXPENDITURE—concluded					
Foreign Companies (In Canada)					
Incurred for claims (fire).....	17,785,084	18,112,084	17,897,614	21,777,434	19,026,921
General expenses (fire).....	13,257,313	13,740,336	13,899,819	16,120,209	18,772,232
Incurred for claims (casualty).....	8,758,502	6,901,612	6,653,022	9,498,697	19,215,059
General expenses (casualty).....	5,432,855	5,244,734	5,731,607	7,048,391	11,457,739
Premium taxes and fees.....	1,398,691	1,437,018	1,418,647	1,708,675	2,225,155
Income tax.....	470,044	563,500	797,193	444,131	1,238,506
Excess profits tax.....	178,596	—1,873	395	—	—
Provincial corporation income tax.....	55,914	45,541	50,471	41,079	41,054
Dividends or savings credited to subscribers.....	2,347,838	3,821,021	3,527,772	3,435,151	5,269,798
Totals, Foreign Companies.....	49,684,477²	49,863,973	49,976,540	60,073,767	77,246,464
Excess of income over expenditure.....	3,947,092	5,906,511	7,177,370	7,138,299	13,957,951

¹ Includes \$100,000 preference stock redeemed.

² \$360 penalty recovered.

Subsection 4.—Fire Losses

Fire Losses.—The information in Tables 8 to 11 which deals with the loss of property and life caused by fire has been summarized from the Statistical Bulletin of the Association of Canadian Fire Marshals and the Dominion Fire Prevention Association, prepared by the Dominion Fire Commissioner.

8.—Fire Losses in Canada, 1940-51

NOTE.—Figures for 1926-39 are given at p. 1078 of the 1947 Year Book. Earlier figures from 1898 may be obtained from the Department of Insurance.

Year	Fires Reported	Property Loss	Loss per Capita	Deaths by Fire	Year	Fires Reported	Property Loss ¹	Loss per Capita	Deaths by Fire
	No.	\$	\$	No.		No.	\$	\$	No.
1940.....	46,629	22,735,264	2.01	243	1946.....	55,400	49,413,363	4.01	408
1941.....	48,609	28,042,907	2.46	323	1947.....	52,931	57,050,461	4.53	390
1942.....	47,596	31,182,238	2.70	304	1948.....	53,048	67,144,473	5.21	493
1943.....	47,594	31,464,710 ¹	2.67	319	1949.....	54,500	65,159,044	4.94	542
1944.....	50,719	40,562,478 ¹	3.39	307	1950.....	59,710	81,525,298	5.88	441
1945.....	52,173	41,903,020 ¹	3.46	391	1951 ²	60,317	76,919,357	5.49	486

¹ Federal jurisdiction losses, including forests, not included. ²Newfoundland excluded.

9.—Fire Losses, by Provinces, 1947-51

Province or Territory	1947	1948	1949	1950	1951
	\$	\$	\$	\$	\$
Newfoundland.....	...	...	...	660,100 ¹	...
Prince Edward Island.....	441,872	301,275	588,017	422,534	725,893
Nova Scotia.....	3,390,062	2,716,983	2,441,016	3,149,464	4,547,955
New Brunswick.....	2,301,141	2,819,962	2,850,007	3,016,191	2,865,881
Quebec.....	17,434,820	25,000,745	20,490,505	22,962,910	25,933,975
Ontario.....	18,974,719	20,557,149	20,237,896	22,619,343	23,241,177
Manitoba.....	2,359,511	2,693,868	2,243,589	3,636,631	2,377,092
Saskatchewan.....	1,480,584	2,105,561	2,997,610	2,640,021	2,776,614
Alberta.....	2,131,089	3,634,160	5,299,584	5,242,553	4,661,963
British Columbia.....	8,359,901	7,147,720	7,556,229	7,052,706	8,604,426
Yukon and N.W.T.....	176,962	167,050	454,591	122,845	1,184,381
Canada².....	57,050,461	67,144,473	65,159,044	81,525,298	76,919,357³

¹ Available for the first time in 1950. ² See footnote to Table 8, p. 1139. ³ Newfoundland excluded.

The property losses for 1951 by provinces given in Table 9 are the total fire losses insured and uninsured. The percentages of the provincial total uninsured were as follows: Prince Edward Island, 35; Nova Scotia, 61; New Brunswick, 32; Quebec, 20; Ontario, 22; Manitoba, 17; Saskatchewan, 16; Alberta, 7; British Columbia, 40; and the Yukon and Northwest Territories, 16. Uninsured losses formed 25 p.c. of total losses for Canada.

10.—Fire Losses, by Type of Property, 1949-51

Type of Property	1949		1950		1951 ¹	
	Fires Reported	Property Loss	Fires Reported	Property Loss	Fires Reported	Property Loss
	No.	\$	No.	\$	No.	\$
Residential.....	39,350	13,139,962	44,619	20,282,028	44,673	19,892,811
Mercantile.....	6,209	19,161,019	5,737	21,586,449	6,217	18,907,864
Farm.....	1,588	12,409,077	3,718	5,996,978	3,563	5,571,199
Manufacturing.....	3,582	5,836,360	1,794	18,442,577	2,818	16,538,095
Institutional and assembly.....	1,164	5,555,410	924	7,217,956	819	5,934,185
Miscellaneous.....	2,607	9,057,216	2,918	7,999,310	3,227	10,075,203
Totals.....	54,500	65,159,044	59,710	81,525,298	60,317	76,919,357

¹ Newfoundland excluded.

11.—Value of Property Loss, by Reported Cause of Fire, 1949-51

Reported Cause	1949		1950		1951 ¹	
	Fires Reported	Property Loss	Fires Reported	Property Loss	Fires Reported	Property Loss
	No.	\$	No.	\$	No.	\$
Smokers' carelessness.....	17,904	3,528,545	19,319	5,408,953	21,192	3,515,329
Stoves, furnaces, boilers and smoke pipes.....	5,573	4,640,026	7,326	5,232,863	6,652	5,135,132
Electrical wiring and appliances..	4,918	6,723,339	5,609	17,246,407	5,513	8,284,017
Matches.....	2,653	738,442	2,636	732,611	2,532	711,121
Defective and overheated chimneys and flues.....	2,503	1,902,927	3,115	2,813,984	2,573	2,409,573
Hot ashes, coals and open fires....	2,307	1,243,670	2,042	1,124,495	2,118	1,347,192
Petroleum and its products.....	1,760	2,069,838	2,070	2,744,417	2,124	2,548,450
Lights, other than electric.....	1,253	854,213	1,323	1,002,796	1,329	2,459,274
Lightning.....	1,104	875,466	1,426	707,087	1,344	1,116,786
Sparks on roofs.....	990	515,244	888	2,337,868	725	423,653
Exposure fires.....	656	1,569,320	651	1,115,374	587	2,084,081
Spontaneous ignition.....	426	1,698,367	362	2,533,890	386	1,594,857
Incendiarism.....	246	1,058,404	296	753,713	250	1,372,244
Miscellaneous known causes (explosions, fireworks, friction, hot grease or metal, steam and hot water pipes, etc.).....	4,864	4,910,102	5,197	3,116,588	5,481	6,493,696
Unknown.....	7,343	32,831,140	7,450	34,654,247	7,511	37,423,952
Totals.....	54,500	61,159,044	59,710	81,525,298	60,317	76,919,357

¹ Newfoundland excluded.

Section 2.—Life Insurance

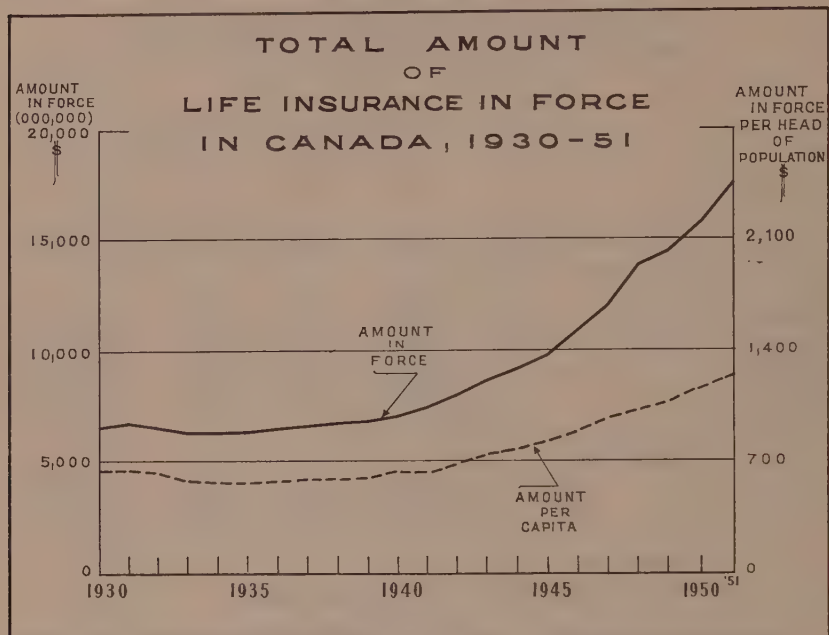
Life insurance in force in Canada, in companies registered by the Federal Government, was over \$17,235,000,000 at the end of 1951, an increase of about \$1 490,000,000 during the year. There was not only an increase in new business, but also a greater stability in business written compared with earlier years. The effect of these factors is reflected in the ratio of gain in business in force expressed as a percentage of the amount in force at the beginning of the same year.

Year	Net in Force at Beginning of Year	Gain in Force for the Year	Percentage Gain
	\$	\$	
1930.....	6,157,000,000	335,000,000	5.4
1935.....	6,221,000,000	38,000,000	0.6
1939.....	6,630,000,000	146,000,000	2.2
1940.....	6,776,000,000	199,000,000	2.9
1941.....	6,975,000,000	374,000,000	5.4
1942.....	7,349,000,000	527,000,000	7.2
1943.....	7,876,000,000 ¹	658,000,000	8.4
1944.....	8,534,000,000	605,000,000	7.1
1945.....	9,139,000,000	612,000,000	6.7
1946.....	9,751,000,000	1,061,000,000	10.9
1947.....	10,812,000,000	1,088,000,000	10.1
1948.....	11,900,000,000	1,205,000,000	10.1
1949.....	13,105,000,000	1,303,000,000	9.9
1950.....	14,409,000,000	1,337,000,000	9.3
1951 ¹	15,746,000,000	1,490,000,000	9.5

¹ Excludes \$44,000,000 adjustment arising out of method of reporting juvenile insurance.

Subsection 1.—Total Registered Life Insurance in Force in Canada

In addition to the business transacted by life insurance companies registered by the Federal Government, a considerable volume of business is also transacted by companies licensed by the provinces. Statistics of these provincially licensed companies have been collected by the Department of Insurance, since 1915. Table 12 summarizes the volume of business transacted by Canadian, British and foreign life insurance companies and fraternal societies, whether registered by the Federal Government or licensed by the provinces.



12.—Life Insurance Transacted in Canada, 1951¹

NOTE.—Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

Business Transacted by—	New Policies Effectuated (net)	Net Insurance in Force, Dec. 31	Net Premiums Received	Net Claims Paid
	\$	\$	\$	\$
Federal Government Registrations—				
Life companies.....	1,990,735,545	17,235,376,811	394,012,852	128,490,359
Fraternal societies.....	39,657,399	289,434,642	5,447,976	3,888,961
Totals, Federal Government Registrations.....	2,030,392,944	17,524,811,453	399,460,828	132,379,320
Provincial Registrations—				
Provincial companies within province by which they are Incorporated—				
Life companies.....	97,044,515	440,164,724	10,572,727	2,902,810
Fraternal societies.....	17,925,729	148,227,395	3,443,192	2,164,978
Provincial companies in provinces other than those by which they are Incorporated—				
Life companies.....	10,656,008	51,185,105	1,251,728	476,793
Fraternal societies.....	8,142,289	69,156,349	1,538,855	1,182,660
Totals, Provincial Registrations.....	133,768,541	708,733,573	16,806,502	6,727,241
Grand Totals.....	2,164,161,485	18,233,545,026	416,267,330	139,106,561
Canadian Life Companies—				
Federal.....	1,379,210,389	11,807,786,335	263,011,355	83,621,959
Provincial.....	107,700,523	491,349,829	11,824,455	3,379,603
Canadian Fraternal—				
Federal.....	26,781,072	161,384,596	2,224,595	2,361,719
Provincial.....	26,068,018	217,383,744	4,982,047	3,347,638
British life.....	65,773,248	391,382,883	9,205,784	2,784,449
Foreign life.....	545,751,908	5,036,207,593	121,795,713	42,083,951
Foreign fraternal.....	12,876,327	128,050,046	3,223,381	1,527,242

Subsection 2.—Operational Statistics of Registered Life Insurance Companies

The net life insurance in force, in all companies with Federal registration, was only \$35,680,082 in 1869 while in 1951 it was \$17,235,376,811.* The amount per capita of the estimated population of Canada has more than doubled since 1940—evidence of the general recognition of the value of life insurance for the adequate protection of dependants against misfortune. Notable also is the fact that in this field British companies, the leaders in 1869, have fallen far behind Canadian and foreign companies.

13.—Life Insurance in Force and Effectuated in Canada by Companies operating under Federal Government Registration (Fraternal Insurance Excluded),¹ 1880-1951

NOTE.—Figures for the years 1869-99 are given at p. 953 of the 1938 Year Book, and for the years 1901-39 at p. 855 of the 1942 edition.

Year	Net Amount in Force				Insurance in Force per Capita of Estimated Population ²	Net Amount of New Insurance Effectuated during Year
	Canadian Companies	British Companies	Foreign Companies	Total		
	\$	\$	\$	\$	\$	\$
1880.....	37,838,518	19,789,863	33,643,745	91,272,126	21.45	13,906,887
1890.....	135,218,990	31,613,730	81,591,847	248,424,567	51.98	39,802,956
1900.....	267,151,086	39,485,344	124,433,416	431,069,846	81.32	67,729,115
1910.....	565,667,110	47,816,775	242,629,174	856,113,059	122.51	150,785,305
1920.....	1,664,348,605	76,883,090	915,793,798	2,657,025,493	310.55	630,110,900
1930.....	4,319,376,209	117,410,860	2,055,502,125	6,492,283,194	636.00	884,749,748
1940.....	4,609,213,977	145,603,299	2,220,505,184	6,975,322,460	612.89	590,205,536
1941.....	4,835,925,659	145,597,309	2,367,027,774	7,348,550,742	638.62	688,344,283
1942.....	5,184,568,369	152,289,487	2,538,897,449	7,875,755,305	675.80	818,558,946
1943.....	5,586,515,285	162,287,617	2,785,290,816	8,534,093,718	723.53	887,522,851
1944.....	6,001,984,634	171,997,834	2,965,501,763	9,139,484,231	765.07	900,561,491
1945.....	6,440,615,383	183,779,511	3,126,645,941	9,751,040,835	807.74	1,002,576,955
1946.....	7,201,285,815	205,626,216	3,405,490,833	10,812,392,864	879.63	1,393,522,667
1947.....	7,964,185,291	238,614,767	3,697,458,162	11,900,258,220	948.15	1,453,255,487
1948.....	8,830,952,866	270,105,626	4,004,294,358	13,105,352,850	1,022.02	1,504,248,947
1949.....	9,808,084,850	306,032,801	4,294,644,199	14,408,761,850	1,071.52	1,636,356,612
1950.....	10,756,249,942	342,878,530	4,646,707,595	15,745,836,067	1,148.33	1,798,864,211
1951 ^p	11,807,786,335	391,382,883	5,036,207,593	17,235,376,811	1,230.31	1,990,735,545

¹ For statistics of fraternal insurance, see pp. 1148-1150. at p. 143.

² Based on estimates of population given

Life insurance business was transacted in Canada, during 1951, by 58 active companies with Federal registration, including 31 Canadian, 5 British and 22 foreign companies; one of these foreign companies was registered for the acceptance of reinsurance only. In addition to these active companies, there were 7 British and 3 foreign companies writing little or no new insurance, their business being confined largely to the policies already on their books, and one foreign company which was registered in 1951 but which, during that year, wrote no business in Canada.

The operations analysed in the tables of this Subsection, with the exception of Table 17, cover only those companies with Federal registration and are exclusive of fraternal organizations and provincial licensees. However, as indicated in Table 12, these companies' operations cover over 94 p.c. of the life insurance in force in Canada.

* This total does not include fraternal insurance.

14.—Life Insurance in Canada by Companies operating under Federal Government Registration, 1949-51

Year and Nationality of Company	Policies Effected		Policies in Force		Net Premium Income	Net Claims Paid ¹
	No.	Net Amount	No.	Net Amount		
		\$		\$	\$	\$
1949						
Canadian.....	326,550	1,147,420,932	3,843,342	9,808,084,850	232,323,351	76,201,335
British.....	11,497	49,185,340	151,980	306,032,801	7,608,594	2,556,398
Foreign.....	351,484	439,750,340	4,872,323	4,294,644,199	109,881,062	39,175,621
Totals, 1949.....	689,531	1,636,356,612	8,867,645	14,408,761,850	349,813,007	117,933,354
1950						
Canadian.....	318,908	1,244,614,536	3,957,232	10,756,249,942	246,457,270	79,523,634
British.....	11,465	52,618,381	154,486	342,878,530	8,587,454	2,607,533
Foreign.....	363,903	501,631,294	4,899,259	4,646,707,595	115,046,510	40,163,833
Totals, 1950.....	694,276	1,798,864,211	9,010,977	15,745,836,067	370,091,234	122,295,000
1951²						
Canadian.....	330,645	1,379,210,389	4,081,192	11,807,786,335	263,011,355	83,621,959
British.....	13,339	65,773,248	159,107	391,382,893	9,205,784	2,784,449
Foreign.....	368,400	545,751,908	4,932,225	5,036,207,593	121,795,713	42,083,951
Totals, 1951.....	712,384	1,990,735,545	9,172,524	17,235,376,811	394,012,852	128,400,359

¹ Death claims, matured endowments, disability claims and guaranteed dividends.

15.—Progress of Life Insurance in Canada Transacted under Federal Government Registration, 1949-51

Item	1949	1950	1951 ¹
Canadian Companies—			
Policies effected..... No.	326,550	318,908	330,645
Policies in force at end of each year..... "	3,843,342	3,957,232	4,081,192
Policies become claims..... "	34,837	35,917	35,593
Net amounts of policies effected..... \$	1,147,420,932	1,244,614,536	1,379,210,389
Net amounts of policies in force..... \$	9,808,084,850	10,756,249,942	11,807,786,335
Net amounts of policies become claims..... \$	74,877,917	79,337,149	82,327,660
Net amounts of premiums..... \$	232,323,351	246,457,270	263,011,355
Net claims paid ¹ \$	76,201,335	79,523,634	83,621,959
Net outstanding claims..... \$	17,493,377	19,578,986	20,640,370
British Companies—			
Policies effected..... No.	11,497	11,465	13,339
Policies in force at end of each year..... "	151,980	154,486	159,107
Policies become claims..... "	2,346	2,131	2,178
Net amounts of policies effected..... \$	49,185,340	52,618,381	65,773,248
Net amounts of policies in force..... \$	306,032,801	342,878,530	391,382,893
Net amounts of policies become claims..... \$	2,839,972	2,712,482	2,614,524
Net amounts of premiums..... \$	7,608,594	8,587,454	9,205,784
Net claims paid ¹ \$	2,556,398	2,607,533	2,784,449
Net outstanding claims..... \$	1,077,676	1,220,211	895,807
Foreign Companies—			
Policies effected..... No.	351,484	363,903	368,400
Policies in force at end of each year..... "	4,872,323	4,899,259	4,932,225
Policies become claims..... "	77,361	74,662	77,492
Net amounts of policies effected..... \$	439,750,340	501,631,294	545,751,908
Net amounts of policies in force..... \$	4,294,644,199	4,646,707,595	5,036,207,593
Net amounts of policies become claims..... \$	37,497,682	38,455,730	39,473,379
Net amounts of premiums..... \$	109,881,062	115,046,510	121,795,713
Net claims paid ¹ \$	39,175,621	40,163,833	42,083,951
Net outstanding claims..... \$	4,726,990	5,086,638	5,049,870
All Companies—			
Policies effected..... No.	689,531	694,276	712,384
Policies in force at end of each year..... "	8,867,645	9,010,977	9,172,524
Policies become claims..... "	114,544	112,710	115,263
Net amounts of policies effected..... \$	1,636,356,612	1,798,864,211	1,990,735,545
Net amounts of policies in force..... \$	14,408,761,850	15,745,836,067	17,235,376,811
Net amounts of policies become claims..... \$	115,215,571	120,505,361	124,415,563
Net amounts of premiums..... \$	349,813,007	370,091,234	394,012,852
Net claims paid ¹ \$	117,933,354	122,295,000	128,400,359
Net outstanding claims..... \$	23,295,043	25,885,835	26,586,047

¹ Death claims, matured endowments, disability claims and guaranteed dividends.

16.—Ordinary, Industrial and Group Life Insurance Policies in Force and Effected in Canada by Companies operating under Federal Government Registration, 1951^c.

NOTE.—Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

Type of Policy and Nationality of Company	New Policies Effected			Policies in Force		
	No	Net Amount	Average Amount of a Policy	No.	Net Amount	Average Amount of a Policy
		\$	\$		\$	\$
Ordinary Policies						
Canadian.....	270,728	1,108,408,269	4,094	3,412,975	9,296,089,614	2,724
British.....	13,327	61,145,548	4,588	106,784	370,752,146	3,472
Foreign.....	143,756	369,222,142	2,568	1,633,168	2,896,208,927	1,773
Totals, Ordinary Policies ..	427,811	1,538,775,959	3,597	5,152,927	12,563,050,687	2,438
Industrial Policies						
Canadian.....	59,044	64,398,807	1,091	661,993	519,333,249	784
British.....	—	—	—	52,278	7,970,121	152
Foreign.....	223,880	99,097,925	443	3,295,223	1,054,680,146	320
Totals, Industrial Policies ..	282,924	163,496,732	578	4,009,494	1,581,983,516	395
Group Policies						
Canadian.....	873	206,403,313	236,430	6,224	1,992,363,472	320,110
British.....	12	4,627,700	385,642	45	12,660,616	281,347
Foreign.....	764	77,431,841	101,351	3,834	1,085,318,520	283,077
Totals, Group Policies	1,649	288,462,854	174,932	10,103	3,090,342,608	305,884

17.—Insurance Death Rates in Canada, 1949 and 1950

Type of Insurer	Policies Exposed to Risk	Policies Terminated by Death	Death Rate per 1,000	Policies Exposed to Risk	Policies Terminated by Death	Death Rate per 1,000
	1949			1950		
	No.	No.		No.	No.	
All companies, ordinary.....	4,698,968	25,056	5.3	4,886,980	25,792	5.3
All companies, industrial.....	4,099,427	27,906	6.8	4,072,625	30,407	7.5
Fraternal benefit societies.....	290,641	3,650	12.6	308,766	3,798	12.3
Totals	9,089,036	56,612	6.2	9,268,371	59,997	6.5

Subsection 3.—Finances of Life Insurance Companies

The financial statistics of Tables 18, 19 and 20 cover only life insurance companies with Federal registration and do not include fraternal organizations and provincial licensees. In the case of British and of foreign companies, the figures apply to their assets, liabilities and operations in Canada only but, in the case of Canadian companies, assets and liabilities, income and expenditure, arise, in part, from business abroad.

18.—Assets of Canadian Life Companies with Federal Government Registration and Assets in Canada of British and Foreign Life Companies, 1949-51

Assets	1949	1950	1951 ^p
	\$	\$	\$
Canadian Companies¹			
Real estate.....	43,127,757	56,408,675	78,887,302
Real estate held under agreements of sale.....	7,559,078	6,274,589	6,657,216
Loans on real estate.....	689,604,251	836,405,087	995,049,083
Loans on collaterals.....	2,178,157	1,775,374	1,187,430
Policy loans.....	192,101,920	207,711,778	231,364,171
Bonds, debentures and stocks.....	3,239,256,242	3,332,584,895	3,376,097,065
Interest and rent due and accrued.....	35,743,334	37,691,873	68,727,248
Cash.....	46,495,022	48,079,664	41,173,153
Outstanding and deferred premiums.....	72,819,352	79,729,948	84,836,661
Other assets.....	4,801,930	5,001,754	4,678,983
Totals, Canadian Companies²	4,333,687,093	4,611,663,627	4,888,658,312
British Companies			
Real estate.....	2,155,194	2,153,923	2,364,590
Real estate held under agreements of sale.....	7,995	7,671	3
Loans on real estate.....	7,511,296	9,203,763	14,757,989
Loans on collaterals.....	3	3	3
Policy loans.....	2,497,849	2,787,525	3,194,625
Bonds, debentures and stocks.....	111,207,824	126,335,850	131,083,089
Interest and rent due and accrued.....	463,534	535,412	587,291
Cash.....	3,572,888	2,758,207	1,868,508
Outstanding and deferred premiums.....	767,660	852,205	1,110,502
Other assets.....	91,379	2,094	35,595
Totals, British Companies	128,275,619	144,636,650	155,002,189
Foreign Companies			
Real estate.....	1,532,585	1,535,256	1,430,226
Real estate held under agreements of sale.....	3	3	3
Loans on real estate.....	7,366,214	36,581,219	92,858,052
Loans on collaterals.....	3	3	3
Policy loans.....	43,307,583	45,117,221	49,058,653
Bonds, debentures and stocks.....	843,008,406	853,640,862	821,846,387
Interest and rent due and accrued.....	8,656,123	9,383,943	10,091,721
Cash.....	23,256,482	24,516,991	20,128,533
Outstanding and deferred premiums.....	16,586,921	18,161,137	19,912,041
Other assets.....	22,568	57,594	63,141
Totals, Foreign Companies	943,736,882	988,994,223	1,015,388,754

¹ A detailed classification of assets showing investments of Canadian companies and giving the percentage of the total in each group and sub-group will be found in the *Report of the Superintendent of Insurance, Vol. II.* ² Book values, any excess of book over market values being covered by a reserve in the liabilities. ³ None reported.

19.—Liabilities of Canadian Life Companies with Federal Government Registration and Liabilities in Canada of British and Foreign Life Companies, 1949-51

Liabilities	1949	1950	1951 ^p
	\$	\$	\$
Canadian Companies			
Outstanding claims.....	35,666,890	37,308,632	39,069,436
Reserve under contracts in force.....	3,447,049,338	3,665,143,408	3,902,769,222
Sundry liabilities.....	649,093,009	690,127,168	712,846,797
Totals, Canadian Companies¹	4,131,809,237	4,392,579,208	4,654,685,455
Surpluses of assets excluding capital.....	201,877,856	219,084,419	233,972,857
Capital stock paid up.....	12,697,825	12,697,825	13,519,730

¹ Excludes capital.

19.—Liabilities of Canadian Life Companies with Federal Government Registration and Liabilities in Canada of British and Foreign Life Companies, 1949-51—concluded

Liabilities	1949	1950	1951 ^p
	\$	\$	\$
British Companies			
Outstanding claims.....	1,077,676	1,220,212	895,807
Reserve under contracts in force.....	96,493,256	112,023,922	127,790,418
Sundry liabilities.....	1,971,147	1,832,980	1,853,836
Totals, British Companies.....	99,542,079	115,077,114	130,540,061
Surpluses of assets in Canada.....	28,733,540	29,559,536	24,462,128
Foreign Companies			
Outstanding claims.....	4,726,989	5,086,637	5,049,872
Reserve under contracts in force.....	776,491,918	819,972,190	859,853,287
Sundry liabilities.....	56,576,017	59,014,494	61,218,598
Totals, Foreign Companies.....	837,794,921	884,073,321	926,121,757
Surpluses of assets in Canada.....	105,941,958	104,920,902	89,266,997

20.—Cash Income and Expenditure of Canadian Life Companies, with Federal Government Registration and Cash Income and Expenditure in Canada of British and Foreign Life Companies, 1949-51.

Principal Items	1949	1950	1951 ^p
	\$	\$	\$
INCOME			
Canadian Companies			
Net premium income.....	412,371,671	424,489,515	450,740,241
Consideration for annuities.....	69,597,745	74,401,273	102,419,444
Interest, dividends and rents.....	149,916,703	161,338,430	173,403,628
Sundry items.....	108,123,946	120,531,220	112,889,071
Totals, Canadian Companies.....	740,010,065	780,760,438	839,452,384
British Companies			
Net premium income.....	7,608,594	8,587,454	9,205,784
Consideration for annuities.....	11,591,157	11,941,195	12,786,710
Interest, dividends and rents.....	3,360,763	4,063,962	4,800,862
Sundry items.....	422,371	530,266	482,712
Totals, British Companies.....	22,982,885	25,122,877	27,276,068
Foreign Companies			
Net premium income.....	109,881,063	115,046,510	121,795,713
Consideration for annuities.....	5,551,290	6,794,354	6,594,265
Interest, dividends and rents.....	28,011,947	29,398,785	33,114,222
Sundry items.....	8,526,233	8,620,732	8,175,427
Totals, Foreign Companies.....	151,970,533	159,860,351	169,679,627
EXPENDITURE			
Canadian Companies			
Payments to policyholders.....	278,244,472	294,268,703	309,638,047
General expenses.....	116,235,696	123,748,044	152,533,174
Dividends to shareholders.....	1,859,428	1,866,309	3,098,473
Other disbursements.....	64,179,266	68,646,466	84,520,352
Totals, Canadian Companies.....	460,518,862	488,529,522	549,790,046
Excess of income over expenditure.....	279,491,203	292,230,916	289,662,338

20.—Cash Income and Expenditure of Canadian Life Companies with Federal Government Registration and Cash Income and Expenditure in Canada of British and Foreign Life Companies, 1949-51—concluded.

Principal Items	1949	1950	1951 ^p
	\$	\$	\$
EXPENDITURE—concluded			
British Companies			
Payments to policyholders.....	4,966,271	6,424,693	7,196,257
General expenses.....	3,491,279	3,709,431	4,127,780
Other disbursements.....	247,810	376,643	289,878
Totals, British Companies.....	8,705,360	10,510,767	11,613,915
Excess of income over expenditure.....	14,277,525	14,612,110	15,662,153
Foreign Companies			
Payments to policyholders.....	68,331,477	73,164,112	77,739,856
General expenses.....	25,809,237	29,078,880	32,552,808
Other disbursements.....	5,568,310	6,360,672	7,140,047
Totals, Foreign Companies.....	99,709,024	108,603,664	117,432,711
Excess of income over expenditure.....	52,261,509	51,256,717	52,246,916

Subsection 4.—Life Insurance Effected through Fraternal Benefit Societies

In addition to life insurance, some fraternal benefit societies grant other insurance benefits to members, notably sickness benefits, but these are relatively unimportant. Table 21 gives statistics of life insurance effected through fraternal benefit societies by Canadian members, together with statistics of assets, liabilities, income and expenditure relating to all business of Canadian societies and to the business in Canada of foreign societies. The rates charged by these societies are computed to be sufficient to provide the benefits granted, having regard for actuarial principles. The benefit funds of each society must be valued annually by a qualified actuary (Fellow, by examination, of the Institute of Actuaries of Great Britain, of the Faculty of Actuaries in Scotland, or of the Society of Actuaries) and a readjustment of rates or benefits must be made, unless the actuary certifies to the solvency of each fund. The statistics of Table 21, at p. 1149, relate to the 16 Canadian societies reporting to the Department of Insurance of the Federal Government, of which only one does not grant life insurance benefits.

Under an amendment to the Insurance Act, effective Jan. 1, 1920, all foreign fraternal benefit societies were required to obtain authority from the Federal Government prior to transacting business in Canada. However, any such societies which at that date were transacting business under provincial licences, while forbidden to accept new members, were permitted to continue all necessary transactions in respect of insurance already in force. Most of these societies and some foreign societies that had not previously been licensed by the provinces have since obtained federal authority to transact business. Of both classes of societies, 31 transacted business in Canada during 1951; two of the societies do not grant life insurance benefits.

**21.—Life Insurance in Canada of Fraternal Benefit Societies reporting to the
Department of Insurance of the Federal Government, 1949-51**

Item	1949	1950	1951 ^a
	No.	No.	No.
CANADIAN SOCIETIES			
Net certificates effected.....	19,338	22,898	22,414
Net certificates become claims.....	2,953	2,979	2,919
	\$	\$	\$
Net premium income.....	2,056,356	2,073,356	2,224,595
Net amounts of certificates effected.....	19,860,441	23,849,288	26,781,072
Net amounts in force.....	135,565,962	150,028,077	161,384,596
Net amounts of certificates become claims.....	2,513,565	2,503,960	2,427,850
Net benefits paid.....	2,916,100	2,937,547	2,927,899
Net outstanding claims.....	294,884	319,492	290,003
Gross Amounts Terminated by—			
Death.....	1,892,618	1,965,756	1,898,901
Surrender, expiry, lapse, etc.....	12,178,248	15,530,908	17,906,855
Totals, Terminated.....	14,070,866	17,496,664	19,805,756
Assets¹			
Real estate.....	943,496	996,913	2,049,648
Real estate held under agreements of sale.....	493,219	949,218	842,537
Loans on real estate.....	9,200,923	10,472,395	10,387,061
Policy loans.....	4,028,164	3,845,729	3,850,314
Bonds, debentures and stocks.....	72,532,873	74,893,139	76,839,620
Cash.....	1,372,707	1,399,083	1,253,708
Interest and rent due and accrued.....	623,189	685,987	701,043
Dues from members.....	402,705	554,739	663,280
Other assets.....	205,824	211,861	217,789
Totals, Assets.....	89,863,100	94,009,064	96,805,000
Liabilities¹			
Outstanding claims.....	461,856	427,681	377,053
Reserves under contracts in force.....	72,316,363	74,911,139	78,038,742
Other liabilities.....	9,074,744	10,340,025	10,495,853
Totals, Liabilities.....	81,852,963	85,678,845	88,911,648
Income			
Premiums (for benefits).....	4,044,376	4,085,963	4,454,876
Fees and dues (for expenses).....	2,879,817	3,548,315	4,114,729
Interest and rents.....	3,171,495	3,316,342	3,431,888
Other receipts.....	763,449	1,223,580	586,487
Totals, Income.....	10,859,137	12,174,200	12,587,980
Expenditure			
Paid to members.....	5,898,335	5,859,172	5,965,780
General expenses.....	3,009,165	3,764,292	4,211,215
Other disbursements.....	81,846	126,645	116,376
Totals, Expenditure ¹	8,989,346	9,750,109	10,293,371
Excess of income over expenditure.....	1,869,791	2,424,091	2,294,609

¹ Includes business outside Canada.

**21.—Life Insurance in Canada of Fraternal Benefit Societies reporting to the
Department of Insurance of the Federal Government, 1949-51—concluded**

Item	1949	1950	1951 ^p
	No.	No.	No.
FOREIGN SOCIETIES			
Net certificates effected.....	11,127	9,971	9,394
Net certificates become claims.....	1,330	1,295	1,361
	\$	\$	\$
Net premium income.....	3,084,947	3,135,678	3,223,381
Net amounts of certificates effected.....	14,354,990	13,398,587	12,876,327
Net amounts in force.....	123,739,629	124,513,850	128,050,046
Net amounts of certificates become claims.....	1,399,351	1,355,999	1,497,335
Net benefits paid.....	2,029,534	2,064,888	2,078,815
Net outstanding claims.....	247,861	242,387	307,599
Gross Amounts Terminated by—			
Death.....	1,191,681	1,181,687	1,272,246
Surrender, expiry, lapse, etc.....	10,027,374	10,203,369	9,844,852
Totals, Terminated.....	11,219,055	11,385,056	11,117,098
Assets			
Real estate.....	—	—	—
Loans on real estate.....	257,159	247,030	244,676
Policy loans.....	1,528,911	1,575,917	1,712,467
Bonds, debentures and stocks.....	24,655,250	26,289,555	27,676,155
Cash.....	1,352,571	1,499,276	1,251,102
Interest and rent due and accrued.....	214,512	227,381	250,017
Dues from members.....	212,483	211,948	216,730
Other assets.....	13,428	13,723	16,273
Totals, Assets.....	28,234,314	30,064,830	31,367,420
Liabilities			
Outstanding claims.....	422,036	381,951	449,059
Reserve under contracts in force.....	23,390,446	24,772,047	26,533,529
Other liabilities.....	1,920,502	1,711,138	1,923,144
Totals, Liabilities.....	25,732,984	26,865,136	28,905,732
Income			
Premiums (for benefits).....	4,099,558	4,178,069	4,336,333
Fees and dues (for expenses).....	1,094,387	1,113,572	1,147,875
Interest and rents.....	765,409	862,298	959,809
Other receipts.....	378,122	415,851	422,484
Totals, Income.....	6,337,476	6,569,790	6,866,501
Expenditure			
Paid to members.....	2,713,094	2,725,812	2,748,373
General expenses.....	720,303	728,694	703,484
Other expenditure.....	260,981	310,095	330,767
Totals, Expenditure.....	3,694,378	3,764,601	3,782,624
Excess of income over expenditure.....	2,643,098	2,805,189	3,083,877

Subsection 5.—Life Insurance in Force Outside Canada by Registered Canadian Companies

Tables 22 and 23 give summary statistics of insurance in force as at Dec. 31, 1950, in currencies other than Canadian, classified by companies and by the currencies in which business was written. The data given here are in Canadian dollars, mainly at par rates of exchange for the countries concerned, but there are several exceptions where, for purposes of account, certain companies have converted foreign currencies at rates other than par, particularly where the current rate differs substantially from the par rate. More than 65 p.c. of all such business in force was written in United States currency and over 20 p.c. in sterling. From another standpoint, over 29 p.c. was written in currency of British countries outside Canada, and over 70 p.c. in currencies of foreign countries.

Canadian life companies, operating under Federal Government registration, had at Dec. 31, 1950, in countries outside Canada, life insurance in force amounting to \$5,159,986,460. As shown in Table 22, insurance in force in currencies other than Canadian amounted to \$5,099,952,335. The difference between these figures is, presumably, the net amount of non-Canadian business transacted in Canadian currency. As against the total non-Canadian business, including annuity business, the British and foreign investments of Canadian life insurance companies as at Dec. 31, 1950, amounted to \$1 674,502,865. Since the business in force in Canada of these companies at Dec. 31, 1950, amounted to \$10,756,249,942, the total business on their books, Canadian and non-Canadian, amounted to \$15,916,236,402. Thus, over 32 p.c. of the total business in force was outside Canada.

22.—Life Insurance Effectuated and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Federal Government Registration, in Currencies other than Canadian, by Companies, 1950.

NOTE.—Figures for the year 1949 may be obtained from the Department of Insurance, Ottawa.

Company	Insurance Effectuated			Insurance in Force		
	British Currencies	Foreign Currencies	Total	British Currencies	Foreign Currencies	Total
	\$	\$	\$	\$	\$	\$
Alliance Nationale....	—	—	—	—	3,983,860	3,983,860
Canada.....	15,496,344	25,788,673	41,285,017	134,827,120	276,007,426	410,834,546
Commercial.....	—	—	—	—	35,000	35,000
Confederation.....	22,652,774	30,364,433	53,017,207	161,404,867	178,889,176	340,294,043
Continental.....	—	—	—	30,078	115,293	145,371
Crown.....	11,003,772	40,953,275	51,957,047	59,469,582	211,044,956	270,514,538
Dominion.....	976,986	15,689,023	16,666,014	9,190,900	67,439,970	76,630,870
Dom. of Canada General.....	486,074	—	486,074	3,165,682	8,933	3,174,615
T. Eaton.....	—	—	—	12,500	4,821	17,321
Equitable.....	—	—	—	—	191,360	191,360
Great-West.....	—	80,113,363	80,113,363	434,993	436,788,346	437,223,339
Imperial.....	10,983,513	6,616,137	17,599,650	45,102,035	39,756,844	84,858,879
London.....	—	807,156	807,156	—	5,818,464	5,818,464
Manufacturers.....	38,308,780	59,690,530	97,999,310	223,343,538	384,461,619	607,805,157
Maritime.....	184,358	—	184,358	2,060,802	21,614	2,082,416
Monarch.....	—	—	—	—	206,652	206,652
Montreal.....	—	—	—	282,315	421,743	704,058
Mutual.....	22,190	1,391,036	1,413,226	1,069,571	15,289,738	16,359,309
National.....	849,326	363,616	1,212,942	6,086,063	1,701,552	7,787,615
North American.....	997,929	8,965,165	9,963,094	6,303,134	46,997,216	52,300,350
Northern.....	—	1,860,230	1,860,230	48,850	14,621,136	14,669,986
Sauvegarde.....	—	—	—	—	5,000	5,000
Sun.....	97,422,361	176,513,079	273,935,440	842,327,026	1,921,888,624	2,764,215,650
Western.....	—	—	—	—	63,936	63,936
Totals.....	199,384,407	449,115,721	648,500,128	1,495,159,056	3,604,793,279	5,099,952,335

22.—Life Insurance Effectuated and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Federal Government Registration, in Currencies other than Canadian, by Companies, 1950—concluded.

Company	Liabilities		
	British Currencies	Foreign Currencies	Total
	\$	\$	\$
Alliance Nationale.....	—	1,068,426	1,068,426
Canada.....	57,751,447	97,825,458	155,576,905
Commercial.....	—	17,475	17,475
Confederation.....	58,103,519	38,618,507	96,722,026
Continental.....	16,374	43,729	60,103
Crown.....	16,897,536	33,956,181	50,853,717
Dominion.....	1,885,001	15,603,770	17,488,771
Dominion of Canada General.....	696,722	2,753	699,475
T. Eaton.....	7,447	2,351	9,798
Equitable.....	—	49,589	49,589
Great-West.....	435,146	121,338,278	121,773,424
Imperial.....	12,652,944	13,521,518	26,174,462
London.....	—	460,098	460,098
Manufacturers.....	77,974,214	125,505,401	203,479,615
Maritime.....	727,538	10,428	737,966
Monarch.....	—	436,873	436,873
Montreal.....	407	139,831	140,238
Mutual.....	500,917	4,353,308	4,854,225
National.....	959,510	342,001	1,301,511
North American.....	1,261,697	11,816,947	13,078,644
Northern.....	16,644	1,504,688	1,521,332
Sauvegarde.....	—	685	685
Sun.....	346,398,077	665,100,411	1,011,498,488
Western.....	—	20,146	20,146
Totals.....	576,285,140	1,131,738,852	1,708,023,992

23.—Life Insurance Effectuated and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Federal Government Registration, in Currencies other than Canadian, 1959.

NOTE.—Figures for the year 1949 may be obtained from the Department of Insurance, Ottawa.

Currency	Insurance Effectuated	Insurance in Force	Liabilities
	\$	\$	\$
British Currency—			
Pounds—			
Sterling.....	132,829,149	1,029,183,518	432,946,650
Australia.....	—	31,368	22,186
British West Indies and Bermuda.....	6,342,489	45,002,303	10,541,972
South Africa.....	21,734,424	166,595,964	43,244,466
Southern Rhodesia.....	1,672,595	4,309,113	761,198
Dollars—			
British Honduras.....	49,386	731,182	216,744
British West Indies and Bermuda ¹	10,285,997	67,397,067	20,560,313
Hong Kong.....	1,243,100	9,625,018	2,251,352
Straits or Malayan.....	4,622,052	18,125,254	3,737,290
Rupees—			
Ceylon.....	4,525,217	27,117,533	7,314,729
India.....	13,717,680	118,596,076	52,400,779
Pakistan.....	—	2,948,135	1,794,868
Shillings—			
East Africa.....	2,362,318	5,496,525	492,593
Totals, British Currency.....	199,384,407	1,495,159,056	576,285,140

¹ Includes British Guiana which Crown Life and North American Life Insurance Companies did not separate from British West Indies.

23.—Life Insurance Effectuated and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Federal Government Registration, in Currencies other than Canadian, 1950—concluded.

Currency	Insurance Effectuated	Insurance in Force	Liabilities
	\$	\$	\$
Foreign Currency—			
Bahts (Siam).....	—	262,616	171,034
Bolivares (Venezuela).....	9,942,111	32,022,166	2,252,174
Cordobas (Nicaragua).....	—	18,340	13,833
Dollars (United States of America).....	392,037,212	3,354,447,846	1,086,517,430
Francs (France).....	—	25,299	23,203
Francs (Switzerland).....	—	7,280	15,369
Guilders (Indonesia).....	3,172,408	7,586,850	3,915,490
Guilders (Netherlands Antilles).....	1,110,773	11,020,083	2,480,845
Pesos (Argentina).....	1,653,952	16,675,188	5,036,968
Pesos (Chile).....	—	242,954	166,056
Pesos (Colombia).....	3,963,975	11,987,647	1,494,166
Pesos (Cuba).....	16,663,245	54,674,532	6,554,979
Pesos (Dominican Republic).....	—	7,000	6,272
Pesos (Mexico).....	3,319,636	23,262,824	4,125,660
Pesos (Philippines).....	11,032,584	48,113,843	7,146,012
Pounds (Egypt).....	3,176,420	34,798,781	9,169,623
Pounds (Israel).....	3,043,405	7,698,037	1,028,675
Quetzales (Guatemala).....	—	—	14,125
Rupees (Burma).....	—	1,647,057	1,326,002
Soles (Peru).....	—	308,343	195,756
Yen (Japan).....	—	86,593	83,590
Miscellaneous.....	—	—	1,590
Totals, Foreign Currency.....	449,115,721	3,604,793,279	1,131,738,852
Grand Totals.....	648,500,128	5,099,952,335	1,708,023,992

Subsection 6.—Total Registered Life Insurance in Canada and Business of Canadian Organizations Abroad

Table 24 summarizes the business outside Canada of Canadian life companies and fraternal benefit societies. If to these figures is added the business in Canada of these organizations, as shown in Table 12, p. 1142, total business, internal and external, of all Canadian life insurance companies and fraternal societies may be obtained. Again, adding the business in Canada of British and foreign companies and fraternal societies, a grand total is obtained of all life insurance in Canada and of the life insurance business abroad of Canadian organizations; this total is shown in Table 25.

24.—Business of Registered Canadian Life Companies and Fraternal Societies Abroad, 1951¹

NOTE.—Figures for business in Canada will be found in Table 12, p. 1142. Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

Item	New Policies Effectuated (net)	Net Insurance in Force Dec. 31	Net Premiums Received	Net Claims Paid
	\$	\$	\$	\$
Canadian Life Companies—				
Federal.....	682,282,955	5,528,942,066	187,728,884	79,964,612
Provincial.....	1	1	1	1
Canadian Fraternal Societies—				
Federal.....	19,994,896	113,849,161	1,296,691	2,135,163
Provincial.....	1	1	1	1
Totals.....	702,277,851	5,642,791,227	189,025,575	82,099,775

¹ None reported.

25.—Total Registered Life Insurance Business in Canada and of Canadian Organizations Abroad, 1951^a

NOTE.—Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

Item	New Policies Effectuated (net)	Net Insurance in Force Dec. 31	Net Premiums Received	Net Claims Paid
	\$	\$	\$	\$
Canadian Life Companies—				
Federal.....	2,061,493,344	17,336,728,401	450,740,239	163,586,571
Provincial.....	107,700,523	491,349,829	11,824,455	3,379,603
Canadian Fraternal Societies—				
Federal.....	46,775,968	275,233,757	3,521,286	4,496,882
Provincial.....	26,068,018	217,383,744	4,982,047	3,347,638
British life companies.....	65,773,248	391,382,883	9,205,784	2,784,449
Foreign life companies.....	545,751,908	5,036,207,593	121,795,713	42,083,951
Foreign fraternal societies.....	12,876,327	128,050,046	3,223,381	1,527,242
Grand Totals.....	2,866,439,336	23,876,336,253	605,292,905	221,206,336

Section 3.—Casualty Insurance

The growth of casualty insurance business has been steady since 1875. The report of the Superintendent of Insurance for the calendar year 1880 shows that the number of companies licensed for the transaction of accident, guarantee, plate glass and steam-boiler insurance—the only four classes of casualty insurance then transacted—was 5, 3, 1 and 1, respectively. The report for the year 1951 shows that casualty insurance in Canada now includes various forms of accident and 25 other classes of insurance transacted by companies with Federal Government registration. In 1880, 10 companies transacted casualty insurance but, in 1951, such insurance was issued by 292 companies, of which 70 were Canadian, 78 British and 144 foreign; of these, 206 companies also transacted fire insurance. In addition, 19 fraternal orders or societies carried on accident and sickness insurance as well as life insurance business and 3 fraternal orders or societies carried on accident or sickness insurance only.

Table 27 shows the division of business in this field between Federal Government registrations and provincial licensees and indicates that, as in the cases of fire and life insurance, the bulk of the business (about 90 p.c. in this case) is transacted by companies with Federal Government registration.

Since, as indicated above, most of the companies carrying on casualty insurance in Canada also transact fire insurance, their assets, liabilities, income and expenditure are included in the financial statistics of fire insurance companies given in Section 1, Subsection 3, of this Chapter. Table 28, p. 1157, gives similar figures for total casualty business of Canadian companies, and the casualty business in Canada of British and foreign companies, whose transactions are confined to insurance other than fire and life. In 1951, there were 17 Canadian, 6 British and 63 foreign companies whose operations were limited to the same field.

During the war years, automobile insurance showed a favourable experience with a loss ratio of around 45 p.c. This ratio was slightly lower than for the pre-war years, the result of lessened traffic, but since the end of hostilities the experience tends to be less favourable and in 1951 stood at about 62 p.c.

Hail insurance in 1950 showed a loss ratio of 20 p.c. and in 1951 this had increased to 41 p.c.

Marine insurance showed a very large increase in Canada during the war years and substantial profits resulted. The results for the years 1941 to 1951, inclusive, were as follows:—

Year	Premiums	Claims Incurred	Under-writing Profits
	\$	£	\$
1941.....	6,011,922	2,781,190	1,694,470
1942.....	14,295,543	7,983,963	3,855,415
1943.....	10,061,050	4,931,286	3,449,873
1944.....	6,754,361	2,172,418	3,243,889
1945.....	5,978,274	2,995,704	1,704,367
1946.....	5,655,392	2,232,701	2,084,412
1947.....	7,932,404	4,529,161	1,031,313
1948.....	7,986,658	3,468,045	2,466,397
1949.....	7,715,671	4,327,555	1,342,088
1950.....	7,592,558	3,098,086	2,394,336
1951 ^p	8,906,665	4,673,897	1,722,949

This class of insurance will, no doubt, continue to figure more largely in the business of companies in post-war years than it did before 1939.

26.—Casualty Insurance in Canada, by Companies operating under Federal Government Registration, 1951^p

NOTE.—Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

Class of Business	Number of Companies			Years Transacted	Aggregate Experience During Period Transacted	
	Canadian	British	Foreign		Premiums Written	Claims Incurred
				No.	\$	\$
Accident.....	..	..	..	50	92,299,497	43,476,664
Accident—						
(a) Personal.....	41	42	32	27	104,469,724	40,426,158
(b) Public Liability (Other until 1941).....	45	44	34	27	84,751,166	31,148,161
(c) Employers' liability (Employers' Liability and Workmen's Compensation until 1941).....	39	41	28	27	53,562,941	28,572,286
Combined accident and sickness.....	18	11	27	38	255,239,970	165,325,192
Aircraft (Aviation until 1941).....	4	8	19	24	8,419,931	5,074,651
Automobile.....	47	62	84	42	787,902,195	420,317,349
Boiler—						
(a) Boiler (Steam Boiler until 1941).....	9	6	6	75	25,493,617	2,638,737
(b) Machinery (Electrical Machinery until 1941).....	3	6	6	30	9,956,512	2,595,820
Credit.....	—	—	2	32	7,994,711	2,099,452
Crop.....	—	—	—	1	12,268	40,091
Earthquake.....	17	23	34	27	372,311	15,229
Explosion.....	—	—	—	9	1,195,107	12,189
Explosion (Riot and C.C. until 1941).....	14	11	25	19	1,882,791	35,686
Falling aircraft.....	—	—	1	20	22,407	8,550
Forgery.....	20	3	9	33	1,562,718	340,314
Fraud.....	—	—	—	18	315,992	99,688
Guarantee (not separated into Fidelity and Surety prior to 1921).....	—	—	—	47	13,452,616	3,811,867
Fidelity (since 1921).....	42	27	26	30	38,728,038	10,615,275
Surety (since 1921).....	38	25	19	29	80,761,924	4,370,290
Hail.....	5	3	24	42	107,593,642	64,871,096
Impact by vehicles.....	—	—	1	3	761	—
Inland transportation.....	34	54	58	55	45,103,411	16,952,828
Live stock.....	1	1	2	44	2,762,538	1,700,965
Personal property.....	40	59	63	22	102,969,865	56,427,235
Plate glass.....	41	41	27	77	26,319,354	11,950,953
Real property (Property prior to 1941).....	13	22	23	15	4,380,991	1,354,279
Sickness.....	30	24	12	56	94,846,931	53,163,778
Sprinkler leakage.....	—	—	—	14	844,301	427,673
Sprinkler leakage ¹	8	9	16	23	380,806	110,653
Theft (Burglary prior to 1941).....	45	38	34	69	51,463,576	18,978,160
Title (1907-1916).....	—	—	—	10	11,252	—
Water damage.....	—	—	1	3	33,006	16,740
Weather.....	—	—	3	37	772,237	469,508
Windstorm (Tornado prior to 1941).....	21	17	35	44	6,016,032	3,536,427
Totals.....	...	...	...	...	1,961,904,779	990,953,937

¹ Sprinkler leakage business of fire companies was grouped with fire business from 1923 to 1940, but has been shown separately since 1940 when written under a separate policy.

27.—Casualty Insurance Premiums and Claims in Canada, by Class of Business, 1951^a

NOTE.—Less all reinsurance for Canadian companies and registered or licensed reinsurance only for British and foreign companies. Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

Class of Business	Federal Registered Companies	Provincial Licensees			Lloyds	Grand Total
		Within Provinces by which they are Incorporated	In Provinces other than those by which Incorporated	Total Provincial Licensees		
NET PREMIUMS WRITTEN						
Accident—	\$	\$	\$	\$	\$	\$
Personal.....	7,117,931	417,485	—	417,485	562,554	8,097,971
Public liability.....	10,171,520	202,466	—	202,466	631,441	11,005,427
Employers' liability.....	2,924,799	82,672	—	82,672	239,580	3,247,051
Accident and sickness combined.....	48,755,318	100,327	—	100,327	41,020	48,896,665
Aircraft.....	1,078,359	—	—	—	427,344	1,505,703
Automobile.....	105,284,462	3,886,140	312	3,886,452	7,049,873	116,220,787
Boiler—(b) Boiler.....	2,064,541	7,568	—	7,568	392,387	2,464,496
(a) Machinery.....	1,396,670	19,992	—	19,992	72,716	1,489,378
Credit.....	473,327	—	—	—	—	473,327
Earthquake.....	33,290	—	—	—	29,985	63,275
Explosion.....	14,375	—	—	—	124,911	139,286
Falling aircraft.....	273	—	—	—	—	273
Forgery.....	71,306	—	—	—	4,500	75,806
Guarantee fidelity.....	1,991,991	73,324	—	73,324	517,223	2,509,214
Guarantee surety.....	2,881,639					
Hail.....	4,012,309	1,509,277	51,545	1,560,822	21,348	2,963,272
Impact by vehicles.....	717	—	—	—	—	717
Inland transportation.....	4,134,320	16,845	3,304	20,149	979,719	5,134,188
Live stock.....	65,373	—	—	—	135,895	201,268
Personal property.....	16,093,271	981	—	981	186,181	16,280,433
Plate glass.....	1,774,901	72,667	—	72,667	411	1,847,979
Real property.....	469,148	—	—	—	119,134	588,282
Sickness.....	7,450,526	917,669	—	917,669	29,950	8,398,145
Sprinkler leakage.....	11,155	—	—	—	1,170	12,325
Theft.....	3,780,832	64,246	—	64,246	87,033	3,932,111
Water damage.....	15,884	—	—	—	—	15,884
Weather.....	21,413	271,245	—	271,245	785	293,443
Windstorm.....	295,616	87,278	—	87,278	553	383,447
Totals.....	222,385,266	7,730,182	55,161	7,785,343	11,664,622	241,834,631
NET CLAIMS INCURRED						
Accident—	\$	\$	\$	\$	\$	\$
Personal.....	2,659,575	136,813	—	136,813	136,674	2,943,062
Public liability.....	5,333,506	96,395	—	96,395	237,115	5,667,016
Employers' liability.....	1,052,840	1,414	—	1,414	75,846	1,130,100
Accident and sickness combined.....	35,722,814	54,957	—	54,957	9,996	35,787,767
Aircraft.....	1,137,106	—	—	—	313,513	1,450,619
Automobile.....	65,259,831	2,152,129	3	2,152,132	4,175,942	71,587,905
Boiler—(a) Boiler.....	168,052	15,926	—	15,926	176,846	360,824
(b) Machinery.....	341,175	47,384	—	47,384	41,550	430,109
Credit.....	36,986	—	—	—	—	36,986
Earthquake.....	135	—	—	—	—	135
Explosion.....	850	—	—	—	1,648	2,498
Forgery.....	2,804	—	—	—	9,617	12,421
Guarantee fidelity.....	390,114	6,715	—	6,715	388,030	784,859
Guarantee surety.....	172,893					
Hail.....	1,662,545	479,937	10,979	490,916	11,433	2,164,894
Inland transportation.....	1,670,331	3,170	1,023	4,198	730,610	2,405,139
Live stock.....	19,733	—	—	—	85,594	105,327
Personal property.....	8,761,043	231	—	231	29,779	8,781,053
Plate glass.....	668,196	33,726	—	33,726	557	702,479
Real property.....	146,815	—	—	—	606	147,421
Sickness.....	3,144,704	798,930	—	798,930	21,255	3,964,889
Sprinkler leakage.....	—	—	—	—	—	—
Theft.....	1,382,781	25,048	—	25,048	—	1,363,840
Water damage.....	11,974	—	—	—	—	11,974
Weather.....	4,365	52,297	—	52,297	862	57,524
Windstorm.....	62,600	13,304	—	13,304	203	76,107
Totals.....	129,813,197	3,918,376	12,010	3,930,386	6,401,552	140,145,135

28.—Assets and Liabilities, Income and Expenditure of Canadian, British and Foreign Casualty Insurance Companies, 1950 and 1951

NOTE.—Figures for the year 1949 may be obtained from the Department of Insurance, Ottawa.

Companies	Assets	Liabilities	Excess of Assets Over Liabilities	Income	Expenditure	Excess of Income Over Expenditure
	\$	\$	\$	\$	\$	\$
1950						
Canadian (in all countries)...	21,488,405	12,627,025 ¹	8,861,380	17,728,584	15,351,600	2,376,984
British (in Canada).....	1,957,830	752,251	1,205,579	1,042,040	724,980	317,060
Foreign (in Canada).....	66,171,937	41,465,917	24,706,020	62,376,494	51,133,935	11,242,559
Totals.....	89,618,172	54,845,193	34,772,979	81,147,118	67,210,515	13,936,603
1951²						
Canadian (in all countries)...	23,987,126	14,923,332 ¹	9,063,794	25,157,863	23,351,507	1,806,356
British (in Canada).....	1,565,319	702,920	862,399	670,159	625,500	44,659
Foreign (in Canada).....	64,174,151	42,923,860	21,250,291	64,534,995	58,586,596	5,948,399
Totals.....	89,726,596	58,550,112	31,176,484	90,363,017	82,563,603	7,799,414

¹ Excludes capital stock.

Section 4.—Government Insurance

In addition to the insurance provided by private insurance companies, various types of government insurance schemes have been adopted in recent years by the Federal and Provincial Governments. This Section deals briefly with the principal schemes now in effect.

Only those schemes dealing with the types of insurance covered in the previous Sections of this Chapter, viz., fire, life and casualty, are dealt with here. Information on unemployment insurance, health insurance, export credits insurance, etc., will be found in the Chapters on Labour, Health and Welfare, Foreign Trade, etc.

Veterans Insurance.*—The Veterans Insurance Act (7 Geo. VI, c. 49), which came into force on Feb. 20, 1945, provides that the following persons may contract with the Government of Canada for life insurance, usually without medical examination, during the periods of eligibility shown:—

Eligibility arising out of Service in World War II:

- (a) Veterans, and others deemed by Statute to be veterans.
- (b) Members of the regular Forces who served during the War and were not discharged; Merchant Seamen if eligible to receive a Special Bonus or War Service Bonus; widows of veterans or widowers who did not have Veterans Insurance.

Eligibility arising out of Service in the Special Force since July 5, 1950:

- (c) Persons who served on the strength of the Special Force in a Theatre of Operations and who have been discharged; persons who were awarded pensions under the Pension Act as a result of Service in the Special Force.
- (d) Widows of persons who were on Service in a Theatre of Operations and who died during Special Force Service.

Applications must be approved by:

Dec. 31, 1954 or 10 years after discharge, whichever is later.

Dec. 31, 1954.

3 years after discharge.

Dec. 31, 1954.

* Revised by C. F. Black, Superintendent, Veterans Insurance, Department of Veterans Affairs, Ottawa.

The amount of insurance may be any multiple of \$500 up to a maximum of \$10,000. The plans of insurance available are 10-payment life, 15-payment life, 20-payment life, and life with premiums payable until age 65 or age 85. The policies are non-participating.

Premiums on veterans insurance may be paid monthly, quarterly, semi-annually or annually. They may be paid in cash or from re-establishment credit or by deduction from any pension granted under the Pension Act. The policy contracts include a waiver-of-premium disability provision. No extra premiums are charged for residence, travel or occupational hazards.

At the end of the second policy year a liberal cash value is available. It may be used alternatively to provide reduced paid-up insurance or extended term insurance. A veteran's insurance policy is not assignable, nor is a loan value granted.

The maximum amount of insurance money that will be paid in a lump sum at death is \$2,000; the balance must be paid to the beneficiary as an annuity certain or as a life annuity with or without a guaranteed period.

29.—Summary Statistics of Veterans Insurance, Years Ended Mar. 31, 1948-52

Year Ended Mar. 31—	Insurance Issued During Year		Insurance in Force at End of Year		Death Claims Approved During Year	
	No.	\$	No.	\$	No.	\$
1948.....	8,825	24,599,000	18,433	52,594,612	38	100,500
1949.....	4,615	14,074,500	22,293	63,836,743	91	245,500
1950.....	2,316	7,448,500	23,722	68,016,514	111	340,080
1951.....	3,247	10,718,000	25,917	75,020,885	130	400,500
1952.....	2,302	8,322,500	26,985	79,115,734	158	346,500

Provincial Insurance Schemes.—The Province of Saskatchewan conducts fire, fidelity and surety insurance but not life insurance. This is effected under the terms of the Saskatchewan Government Insurance Act, 1944.

In the Province of Alberta, life insurance is provided through the Life Insurance Company of Alberta, a Crown Company that is not an emanation from the Provincial Government. Similarly, another Crown Company, the Alberta General Insurance Company, provides all other kinds of insurance except life, accident and sickness. The Alberta Hail Board provides farmers with insurance for their crops against damage by hail. Information regarding the operations of these Companies may be obtained from:—

- (a) The Superintendent of Insurance,
Insurance Branch,
Department of the Provincial Secretary for Saskatchewan,
Regina, Saskatchewan.
- (b) The Superintendent of Insurance,
Department of the Provincial Secretary for Alberta,
Edmonton, Alberta.

CHAPTER XXVII.—DEFENCE OF CANADA

CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

PART I.—THE ARMED SERVICES AND DEFENCE RESEARCH*

Section 1.—The Department of National Defence

The Minister of National Defence exercises control over and management of the Canadian Armed Forces, the Defence Research Board and other matters relating to National Defence. Under his direction the Services are commanded by their respective Chiefs of Staff and the Defence Research Board by its Chairman. A Chairman of the Chiefs of Staff Committee, appointed in 1951, is responsible for the co-ordination of the training and operation of the Canadian Forces.

The civilian administrative organization, headed by the Deputy Minister, is constituted on a functional basis. The Deputy Minister maintains a continuing review and control over the financial aspects of operational policy, logistics and personnel and administration.

To achieve a common approach to problems, a number of committees within the Department meet at regular intervals to consider and advise on joint issues:—

- (1) **Defence Council.**—Composed of the Minister of National Defence (Chairman), the Parliamentary Assistants to the Minister, the Deputy Minister, the three Chiefs of Staff and the Chairman of the Defence Research Board, the purpose of the Defence Council is to advise the Minister on administrative matters.
- (2) **Chiefs of Staff Committee.**—This Committee is composed of the Chairman of Chiefs of Staff, the three Chiefs of Staff of the Services, and the Chairman of the Defence Research Board; its meetings are attended also by the Deputy Minister, the Secretary to the Cabinet and the Under Secretary

* Revised under the direction of C. M. Drury, C.B.E., D.S.O., Deputy Minister, Department of National Defence, Ottawa.

of State for External Affairs, and its purpose is to maintain a continuous review of all operational problems. A number of sub-committees consider various aspects of operational problems and report to the parent committee.

- (3) **Personnel Members Committee.**—Composed of the Chief of Naval Personnel, Adjutant-General, Air Member for Personnel, Assistant Deputy Minister (Personnel and Administration), Assistant Deputy Minister (Finance), and a representative of the Chairman of the Defence Research Board, the purpose of this Committee is to examine personnel problems of the three Services with the general aim of achieving uniform personnel policies. Various aspects of personnel problems are considered by sub-committees which report to the parent committee.
- (4) **Principal Supply Officers Committee.**—This Committee is composed of the Chief of Naval Technical Services, the Quartermaster General, the Air Member for Technical Services, Assistant Deputy Minister (Requirements) and a representative of the Chairman of the Defence Research Board and its purpose is to consider all logistical problems. Various aspects of logistical problems are considered by sub-committees which report to the parent committee.
- (5) **Defence Supply Panels.**—Twelve panels, composed of a representative from each of the Services, representatives of the Deputy Minister, of Inspection Services and of the Department of Defence Production, maintain a continuous review of procurement problems and consider various aspects of the procurement of equipment such as ammunition, armament, aircraft, etc., for national defence by the Department of Defence Production.

Liaison Abroad.—The Chairman of Chiefs of Staff, the Canadian Military Representative in the North Atlantic Treaty Organization, is responsible for co-ordinating all military NATO matters and acts as military adviser to Canadian NATO delegations. For purposes of liaison and the furtherance of international co-operation on defence, Canada also maintains: (1) Canadian Joint Staff (Washington) representing the three Services; (2) Canadian Joint Staff (London) representing the three Services; and (3) Service Attachés in various countries throughout the world. In addition, a number of defence matters of concern to both Canada and the United States are considered by the Permanent Joint Board on Defence, composed of representatives from both countries.

Total Strength and Rates of Pay and Allowances.—The strengths of the active forces of the three Services have been increased to keep pace with defence objectives and commitments. At May 31, 1952, the total active force strength was 97,834 composed of: navy, 13,927; army, 49,983; and air force, 33,924. The strength of the reserve elements of the three Services was 57,452.

The entire pay structure for comparable ranks in the different Services is on a uniform basis. Monthly rates of pay and allowances are given in the following table.

**1.—Monthly Rates of Pay and Allowances for Members of the Active Forces,
as at Dec. 1, 1951**

Royal Canadian Navy	The Canadian Army	Royal Canadian Air Force	Basic Pay	Subsistence Allowance	Total	Marriage Allowance	Separated Family Allowance (with children)
			\$	\$	\$	\$	\$
Ordinary Seaman (on entry).	Private (on entry).	Aircraftman 2nd Class.	87	61	148	30	61
Ordinary Seaman (trained).	Private (trained).	Aircraftman 1st Class.	91	61	152	30	61
Able Seaman.	Private.	Leading Aircraftman.	98	61	159	30	61
Leading Seaman.	Corporal.	Corporal.	112	61	173	30	61
Petty Officer 2nd Class.	Sergeant.	Sergeant.	129	72	201	30	72
Petty Officer 1st Class.	Staff Sergeant.	Flight Sergeant.	150	81	231	30	81
Chief Petty Officer 2nd Class.	Warrant Officer 2nd Class.	Warrant Officer 2nd Class.	174	81	255	30	81
Chief Petty Officer 1st Class.	Warrant Officer 1st Class.	Warrant Officer 1st Class.	193	92	285	30	92
Midshipman.	—	—	102	61	163	40	61
Acting Sub-Lieutenant.	Second Lieutenant.	Pilot Officer.	170	65	235	40	65
Sub-Lieutenant.	Lieutenant.	Flying Officer.	210	89	299	40	89
Lieutenant.	Captain.	Flight Lieutenant.	255	94	349	40	94
Lieutenant-Commander.	Major.	Squadron Leader.	335	113	448	40	113
Commander.	Lieutenant-Colonel.	Wing Commander.	395	126	521	40	126
Captain.	Colonel.	Group Captain.	555	139	694	40	139
Commodore.	Brigadier.	Air Commodore.	737	153	890	40	153
Rear-Admiral.	Major-General.	Air Vice-Marshal.	881	165	1,046	40	165

Subsection 1.—The Royal Canadian Navy

Organization.—Naval Headquarters at Ottawa conducts the planning and policy for administration and training of the active and reserve forces of the Royal Canadian Navy. Subject to this authority the flag officers on each coast exercise control in their respective Commands. Ships of the Royal Canadian Navy are based at the Atlantic and Pacific stations. Subsidiary units are the 21 Naval Divisions in cities across the country which serve as shore training establishments for the naval reserve.

Twenty-three major war vessels were in commission at the end of March 1952. The largest of these was a light fleet aircraft carrier of 18,000 tons. Others were two six-inch gun cruisers, five large tribal-class destroyers, three light destroyers, four frigates, four Algerine minesweepers and a newly constructed trawler-type gate vessel. In addition, 54 major war vessels were in reserve, including two escort maintenance vessels, 16 frigates and 18 Bangor minesweepers.

During 1951-52, for the first time during peace, women were enlisted in the R.C.N. Of these, 369 were enrolled in the R.C.N. (R), of whom 107 were employed in communication tasks on continuous naval duty.

During this period, considerable progress was made by the NATO navies in moulding the organization for the defence of the North Atlantic Ocean under a Supreme Allied Naval Commander; Canadian naval officers, appointed to his staff, work side by side with naval officers of other NATO countries.

Operations at Sea, 1951-52.—Three Canadian destroyers were in continuous service in Korean waters, during this period, thus involving a total of five destroyers to meet the requirements of rotation.

After flying training in the Halifax area in May and June 1951, the carrier *Magnificent* and the tribal-class destroyer *Micmac* departed from Halifax in August for a training cruise in the Mediterranean. Exercises were carried out with units of the British Mediterranean Fleet based at Malta and later, with units of the British and French fleets, off the south of France. On return to Halifax in October, *Magnificent* ferried 40 of the R.C.A.F. F-86 aircraft from Norfolk, Va., U.S.A., to Glasgow, Scotland.

The frigates *La Hulloise* and *Swansea* and the destroyer *Crescent* on the East Coast, and the destroyer *Crusader* with the frigates *Beacon Hill* and *Antigonish* on the West Coast took part between May and September 1951 in a series of cruises for training the University Naval Training Division cadets. Visits to the United Kingdom, Pearl Harbour and west coast United States ports were made in the course of these cruises.

In October 1951, Their Royal Highnesses Princess Elizabeth and the Duke of Edinburgh embarked in *Crusader* for passage from Vancouver to Victoria. Subsequently, Their Royal Highnesses were conveyed from Nanaimo to Vancouver. Later in the month, the cruiser *Ontario*, escorted by *Micmac*, conveyed the Royal Party from Charlottetown to Sydney and thence to St. John's, Nfld. The two ships escorted S.S. *Empress of Scotland*, in which Their Royal Highnesses were homeward-bound, from Conception Bay to eastward of Newfoundland before returning to their home ports.

After an informal visit to Washington, D.C., in December 1951, *Swansea* proceeded on a training cruise to Nassau, Bermuda, and New London, U.S.A. *Swansea* was the first R.C.N. ship to visit Washington, D.C.

In January 1952, *Beacon Hill* and *Antigonish* sailed from Esquimalt, B.C., for a training cruise to South America, returning to Esquimalt in February.

During the year, the Algerine-class minesweepers *Wallaceburg* and *Portage* carried out extensive anti-submarine exercises with H.M. submarines *Thule* and *Alcide* and with the United States Navy at New London, Conn., and Norfolk, Va.

The cruiser *Quebec* was recommissioned at Esquimalt, B.C., in January 1952 and after an extensive refit she sailed from Esquimalt in March for Halifax, N.S., where she is employed principally as a training cruiser for new entries.

Training Ashore.—Two major shore establishments, *Stadacona* at Halifax and *Naden* at Esquimalt, are maintained by the Royal Canadian Navy to serve as drafting depots, training schools and centres, and to provide the accommodation facilities required by the fleets based on both coasts. In each of these establishments are schools and training centres which afford instruction for both officers

and men, R.C.N. and R.C.N. (R), in communications, gunnery, torpedo, anti-submarine, navigation direction, electrics and electronics, marine engineering, seamanship, naval ordnance, supply and secretariat duties, diving, damage control and fire-fighting.

A third major shore establishment is the R.C.N. Air Station *Shearwater*, at Dartmouth, N.S., which provides storage, shore accommodation and training facilities for naval aviation.

H.M.C.S. *Cornwallis* at Cornwallis, N.S., is devoted exclusively to training and its organization and program are geared accordingly. The course for new entries extends over 19 weeks. During this period a new entry receives basic instruction in naval subjects, studies mathematics and English, and participates in an extensive program of physical training, sports and recreation.

In February 1952, the first draft of French-speaking recruits arrived at the Basic Training School, H.M.C.S. *Montcalm*, at Quebec, Que., for initial training prior to commencing courses in H.M.C.S. *Cornwallis*. All regular-force recruits whose mother tongue is French will undergo preliminary training at this school in professional naval subjects including seamanship, boatwork, organization, parade training, supply duties, torpedo anti-submarine engineering, communications and naval history. Instruction is given at first in French and in English, with emphasis on the use of English naval terminology. The program is designed to enable new entries from the Basic Training School to join up with classes in H.M.C.S. *Cornwallis* at an appropriate stage in their training.

Officers of the Royal Canadian Navy come from four main sources: (1) Canadian Services colleges; (2) the universities; (3) commissioning from the ranks of the active force; and (4) short-service appointments.

Ship Construction, Refit and Modernization.—During 1951-52, one arctic patrol vessel, one anti-submarine escort vessel, three minesweepers and three gate vessels were launched as part of an extensive R.C.N. program of new construction. Work is well under way on other destroyer escorts and minesweepers. In addition, the destroyer *Algonquin* is being converted for duty as a destroyer escort and the tribal-class destroyers *Iroquois* and *Haida* completed trials following rearmament and modernization. Work is progressing on other miscellaneous and harbour craft. Provision was made for the acquisition of certain frigates and Bangor class minesweepers held in strategic reserve for refitting and modernization. After completion, most of these ships will be maintained in reserve at Sydney, N.S., where the base is being reopened for this project. The system of preservation adopted by the U.S. Navy (dynamic dehumidification) will be used.

Royal Canadian Navy (Reserve).—Naval Reserve Divisions are established in the following centres:

Halifax, N.S., H.M.C.S. *Scotian*
 Charlottetown, P.E.I., H.M.C.S.
Queen Charlotte
 Saint John, N.B., H.M.C.S. *Brunswick*
 Quebec, Que., H.M.C.S. *Montcalm*
 Montreal, Que., H.M.C.S. *Donnacona*
 Ottawa, Ont., H.M.C.S. *Carleton*
 Toronto, Ont., H.M.C.S. *York*
 Kingston, Ont., H.M.C.S. *Cataraqui*
 Hamilton, Ont., H.M.C.S. *Star*
 Windsor, Ont., H.M.C.S. *Hunter*

London, Ont., H.M.C.S. *Prevost*
 Port Arthur, Ont., H.M.C.S. *Griffin*
 Winnipeg, Man., H.M.C.S. *Chippawa*
 Regina, Sask., H.M.C.S. *Queen*
 Saskatoon, Sask., H.M.C.S. *Unicorn*
 Calgary, Alta., H.M.C.S. *Tecumseh*
 Edmonton, Alta., H.M.C.S. *Nonsuch*
 Vancouver, B.C., H.M.C.S. *Discovery*
 Victoria, B.C., H.M.C.S. *Malahat*
 Prince Rupert, B.C., H.M.C.S. *Chatham*
 St. John's, Nfld., H.M.C.S. *Cabot*

Each division, commanded by an R.C.N. (R) officer, is responsible for specialized training in one of the various phases of naval activity—gunnery, harbour defence, aviation, communications, etc.—and Royal Canadian Navy officers and men act as instructors.

During 1951, six Fairmile motor-launches were operated by the divisions on the Great Lakes. The coastal divisions operated one motor-launch, one Algerine minesweeper, one Bangor minesweeper and two 105-ft. wooden minesweepers. These vessels were used extensively in the training of R.C.N. (R) officers and men.

Apart from annual training, officers and men of the R.C.N. (R) may perform voluntary service and special naval duty as required by Naval Headquarters. In the latter case they take the place of Permanent Force officers and men where vacancies exist in complement.

University Naval Training Divisions.—The university naval training program is designed to give instruction to students in attendance at universities across Canada with the object of providing well-trained junior officers for the Royal Canadian Navy and the Royal Canadian Navy (Reserve). Twenty-six U.N.T. Divisions drawing on the students of 41 universities and colleges have been established for this purpose. The total complement of cadets in 1951-52 was 1,278, the number of applicants considerably exceeding the existing vacancies in complement in nearly every instance. During 1951-52 the period of training was reduced by one year to permit cadets at the end of their third completed year to be given the rank of acting sub-lieutenant R.C.N. (R). Under the altered system, 39 U.N.T.D. officers entered the Royal Canadian Navy and 209 obtained commissions in the R.C.N. (Reserve). Assistance to university students who are accepted for the R.C.N. in their final year was continued.

Training is taken at naval divisions and at universities during the academic year. Summer vacation training is taken both in the schools at the coasts and in H.M.C. ships.

The Royal Canadian Sea Cadets.—The Royal Canadian Sea Cadets consists of 82 authorized corps sponsored by the Navy League of Canada and trained and supervised by the Royal Canadian Navy. Enrolment in 1951-52 was approximately 5,900 cadets between the ages of 14 and 18 years. Sea cadets are a valuable source of recruiting for the R.C.N. and the R.C.N. (R). In 1951, approximately 25 p.c. of those eligible to enlist in the forces joined the R.C.N. and 15 p.c. joined the R.C.N. (R).

Subsection 2.—The Canadian Army

Organization.—Army Headquarters at Ottawa, organized as the General Staff Branch, the Adjutant-General Branch and the Quartermaster-General Branch, conducts the planning and policy for the administration and training of the active and reserve forces of the Canadian Army. Public relations, cadet services, military intelligence, chaplain services, provost and associated activities are directed through Commands by Army Headquarters.

The five Commands contain seven areas located as follows:—

<i>Commands</i>	<i>Headquarters</i>	<i>Areas and Headquarters</i>
Western Command.....	Edmonton, Alta....	(i) British Columbia Area, Vancouver, B.C.
Prairie Command.....	Winnipeg, Man.....	(ii) Saskatchewan Area, Regina, Sask.
Central Command.....	Oakville, Ont.....	(iii) Western Ontario Area, London, Ont. (iv) Eastern Ontario Area, Kingston, Ont.
Quebec Command.....	Montreal, Que.....	(v) Eastern Quebec Area, Quebec, Que.
Eastern Command.....	Halifax, N.S.....	(vi) New Brunswick Area, Fredericton, N.B. (vii) Newfoundland Area, St. John's, Nfld.

The components of the Canadian Army are the active force, the reserve force, the supplementary reserve, the Canadian Officers' Training Corps (C.O.T.C.), the cadet services and the reserve militia. Additional to but not an integral part of the Canadian Army are the Services Colleges (*see* pp. 1172-1174), officially authorized cadet corps, rifle associations and clubs.

Operations, 1951-52.—The Princess Patricia Regiment, part of the 25th Army Brigade Group in service with the United Nations in Korea, shared in the United Nations advance into North Korea in April 1951 and played a major role in stemming the communist counter-offensive. In July, the 25th Canadian Infantry Brigade Group was incorporated into the First (Commonwealth) Division United Nations Forces, along with troops of the United Kingdom, Australia, New Zealand and India. Canadian units contributing to the administration and maintenance of the Division included sections for the Divisional headquarters, the Commonwealth hospital, the Divisional ordnance organization and line-of-communication and base troops. The Brigade saw continuous service from September 1951 to January 1952 before withdrawing for refitting and training.

To fulfil obligations assumed under the North Atlantic Treaty, a new formation, known as the 27th Canadian Infantry Brigade Group, was recruited through the agency of Reserve Force units. Fifteen companies were formed into three battalions of the Active Force—the 1st Canadian Rifle Battalion, 1st Canadian Highland Battalion and 1st Canadian Infantry Battalion, while the other companies were variously located at training camps. Supporting services were also raised and armoured support was provided by the Royal Canadian Dragoons. During the first month of recruiting, 146 officers and 6,525 other ranks were enrolled.

The Brigade's main party sailed from Quebec on Nov. 5, 1951, followed by smaller sections throughout November and December. The main party arrived at Rotterdam, The Netherlands, on Nov. 21. The Brigade, as of August 1952, was located near Hanover, Germany, under command of Brigadier Walsh, C.B.E., D.S.O., C.D.

The Army component of the Mobile Striking Force contains the portion of the Canadian Army active force that has been given the task, in conjunction with the R.C.A.F. component, of dealing with surprise enemy airborne assaults on Canada

in the event of war. This force is composed of three infantry battalions with their supporting arms and services. Parachute, northern operational and Arctic training is conducted each year. It is intended that, ultimately, all operational troops of the Mobile Striking Force will be parachute-trained and will be capable of living and fighting under severe climatic conditions. During the winter of 1951-52, battalions of the Mobile Striking Force were rotated with battle-experienced units from Korea. A proportion of parachute-trained personnel from each battalion has been retained in Canada until personnel returning from Korea have completed their parachute training.

Training.—Actual training of active and reserve force personnel is under the General Officers Commanding the five Commands as directed by the appropriate branch of Army Headquarters.

The military training policy for the year 1951-52 was, firstly, to improve the standard of individual and collective training, instructional ability and general efficiency of both active and reserve units; secondly, to bring active force units to the highest standard of operational training; and thirdly, to allow limited collective training in reserve force units where standard of individual training was sufficiently advanced. A further training commitment developed when it was decided to recruit a brigade for service in Europe.

The corps training of officers and men and the basic training of 21,279 recruits was carried out both within units and at various corps schools. In addition, approximately 9,225 personnel attended other courses at schools of instruction.

Basic and advanced training for recruits, as well as refresher courses for all ranks, is conducted in Army Corps Schools organized on a permanent peacetime basis and located as follows:—

Royal Canadian Armoured Corps School, Camp Borden, Ont.
Royal Canadian School of Artillery, Camp Shilo, Man.
Royal Canadian School of Artillery (Anti-Aircraft), Picton, Ont.
Royal Canadian School of Artillery (Coast and Anti-Aircraft), Esquimalt, B.C.
Royal Canadian School of Military Engineering, Chilliwack, B.C.
Royal Canadian School of Signals, Barriefield, Ont.
Royal Canadian School of Infantry, Camp Borden, Ont.
Royal Canadian Army Service Corps School, Camp Borden, Ont.
Royal Canadian Army Medical Corps School, Camp Borden, Ont.
Royal Canadian Army Dental Corps School, Ottawa, Ont.
Royal Canadian Ordnance Corps School, Montreal, Que.
Royal Canadian Electrical and Mechanical Engineers Schools, Barriefield, Ont.
Canadian Provost Corps School, Camp Borden, Ont.

Equipment.—For industrial and strategic reasons, the Canadian Army is adopting, with some exceptions, American-type armament and vehicles. As far as possible these new equipments will be produced in Canada. The importance of standardization has been increased by the adoption of North American equipment and an important contribution to standardization has been the influencing by Canada of selected developments in other countries. Interest has been displayed by the United States and the United Kingdom in such Canadian products as light-weight wireless sets, flame and anti-tank weapons and northland vehicles.

The Reserve Force.—The Reserve Force provides the basis for the organization of a field force in the event of emergency. It is employed on a part-time basis and is subject to annual military training.

Training in 1951-52 was devoted to improving individual skill in handling weapons, fieldcraft, technical ability and physical fitness as well as improving the qualities of leadership, professional ability and instructional techniques of officers and N.C.O's. Where the standard of individual training was sufficiently high, collective training of units and sub-units was carried out at the discretion of officers commanding the Commands.

A training period of 45 days at local headquarters was authorized for all ranks of the Reserve Force with an additional 15 days training at annual camps for 16,000 all ranks. During the year ended Mar. 31, 1952, a total of 3,687 officers and 9,103 other ranks attended summer and winter camps.

The Canadian Officers' Training Corps.—The Canadian Officers' Training Corps comprises in its membership the reserve force command contingents and the university contingents.

Command contingents provide the means whereby potential reserve force officers who are unable to attend the Canadian Services Colleges or to join a university contingent of the Canadian Officers' Training Corps can qualify for a commission in the Reserve Force. Candidates are enrolled as officer cadets and may choose methods of training varying from a complete 26-week course at a corps school to a three-year course consisting of training at local headquarters and at summer camps. Approximately 1,661 officer candidates were enrolled in this training as at Mar. 31, 1952.

In 1951, 1,920 officer cadets (students at universities or service colleges) reported for summer training. Of these 1,824 passed their courses; 400 qualified as lieutenants and 416 as second-lieutenants in the Reserve Force. Approximately 100 officer cadets were commissioned in the Active Force during the period under review.

The Cadet Services of Canada.—The Royal Canadian Army Cadets are formed into 500 cadet corps with an enrolment of 55,000. This organization affords youths of 14 to 18 years of age an opportunity to learn of the Canadian Army and, by following the three-year program, to receive fundamental training as soldiers and junior leaders. The training program was revised in 1951. Summer camp training consists of seven-week courses conducted at Aldershot, N.S., Valcartier, Que., Ipperwash, Ont., Dundurn, Sask., and Vernon, B.C. These courses teach such military trades as driver mechanics, radio-telephone operators, medical assistants and basic-training instructors. The National Cadet Camp at Banff National Park, Alta., is conducted in August as an award for outstanding proficiency in cadet work for 150 carefully selected master and first-class army cadets.

Subsection 3.—The Royal Canadian Air Force

Organization.—Air Force Headquarters at Ottawa conducts the planning and policy for administration and training of the Active and Reserve Forces of the Royal Canadian Air Force. The organization of the R.C.A.F. is divided into three categories; personnel, logistics, and plans and operations. This functional division is reflected in the Air Force Headquarters organization.

During the year ended Mar. 31, 1952, reorganization of the R.C.A.F. was completed on a functional basis. The Air Defence Group at St. Hubert was raised to Command status and 12 Group Vancouver, was renamed 12 Air Defence Group

and placed under control of Air Defence Command. North West Air Command was replaced by Tactical Air Group, with headquarters at Edmonton. No. 14 Training Group, with headquarters at Winnipeg, was formed and placed under the control of Training Command Headquarters, Trenton, Ont. Air Transport Command headquarters was moved from Rockcliffe, Ont., to Lachine, Que.

Higher formations of the R.C.A.F. with their headquarters are as follows:—

<i>Formation</i>	<i>Headquarters</i>
Air Materiel Command.....	Ottawa and Rockcliffe, Ont.
Air Defence Command.....	St. Hubert, Que.
Air Transport Command.....	Lachine, Que.
Training Command.....	Trenton, Ont.
Maritime Group.....	Halifax, N.S.
Tactical Air Group.....	Edmonton, Alta.
12 Air Defence Group.....	Vancouver, B.C.
14 Training Group.....	Winnipeg, Man.

At Air Force Headquarters, the planning staff and the operational and training staffs were amalgamated into one division, under the Vice Chief of the Air Staff.

The expansion of the Air Defence and NATO Forces continued and Air Transport Command commitments increased because of a requirement for additional flights to support forces overseas. The contribution to the Korean airlift was maintained. A transport operational training unit was formed at Lachine, Que., to undertake training for transport crews.

Operations, 1951-52.—Air Defence.—During the year 1951-52, Air Defence Group became Air Defence Command and continued to expand in facilities, aircraft and personnel. Three additional regular fighter squadrons were formed and equipped with F-86E (Sabre) aircraft: No. 439 at Uplands, Ont., No. 413 at Bagotville, Que., and No. 430 at North Bay, Ont. Regular squadrons using Mustang and Vampire aircraft were re-equipped with the F-86E. No. 421 Squadron which proceeded to the United Kingdom in January 1951 returned to Canada in December 1952 and re-formed at St. Hubert. Nos. 410 and 441 Fighter Squadrons were transferred from St. Hubert to R.C.A.F. Station, North Luffenham, England, to become the first two squadrons of No. 1 R.C.A.F. Fighter Wing Overseas.

Maritime.—There was a gradual build-up of facilities, equipment and personnel with the Maritime Group during the year. The newly formed No. 404 (Maritime Reconnaissance) Squadron and No. 405 (Maritime Reconnaissance) Squadron sent crews to the United Kingdom for advanced training in anti-submarine warfare at the Joint Anti-Submarine School. The joint R.C.N.-R.C.A.F. Maritime Warfare School at Halifax and No. 2 (Maritime) Operational Training Unit at Greenwood, N.S., continued their respective training programs throughout the year.

Air Transport.—The squadrons of Air Transport Command continued to provide logistical support, when required, for units of the defence forces and provided similar services for other government departments when no commercial air facilities were available. Two squadrons were employed in Canada solely on air-transport work. A third transport squadron, No. 426, continued transport operations on the transpacific airlift from bases at Tacoma, U.S.A., and Dorval, Que. By Mar. 31, 1952, the squadron had completed over 350 flights across the Pacific to Tokyo and return, carrying more than 4,000,000 lb. of freight and mail and over 8,500 passengers. The squadron has flown almost 4,000,000 miles on the Korean airlift.

Other.—Air photography and survey work continued the large mapping operation that has been undertaken. Station photographic sections were established at newly opened units to provide service for the maintenance of air cameras and for the processing of films used in air-to-air and air-to-ground aircrew training exercises.

The Operational Research Section continued studies of a number of problems such as the relationship of ground environment to fighter characteristics.

Twenty R.C.A.F. forecast offices provide meteorological services in conjunction with the Department of Transport.

Training.—Aircrew training courses were organized for potential aircrew of the R.C.A.F. regular, reserve university and Canadian Services Colleges flight cadets and the R.C.N., and for cadets from countries in the North Atlantic Treaty Organization. During the fiscal year 1951-52, 916 personnel were trained as aircrew.

Facilities for pilots were increased by the formation of flying training schools at Claresholm and Calgary, Alta., in addition to those at Centralia, Ont., and Gimli, Man., and by the advanced flying schools opened at Saskatoon, Sask., and MacDonald, Man. At Calgary, a pilot refresher training school was set up for veteran pilots who have re-enlisted. Navigation training facilities were increased by the formation of an air navigation school at Winnipeg, Man., and the opening of a central navigation school at Summerside, P.E.I. The Air Radio Officers' School was established at the R.C.A.F. Station, Clinton, Ont., to carry out basic training for potential radio officers in the R.C.A.F.

Formal trade courses for newly commissioned non-flying list officers were conducted at R.C.A.F. schools in aeronautical engineering, armament, supply and telecommunications. Courses were provided to qualify officers in flying control.

R.C.A.F. trade specifications have been revised to an approved tri-service standard on the basis of job analysis data previously obtained. The majority of R.C.A.F. trades have been converted to the new trades structure as represented by these specifications, and approximately 85 p.c. of personnel reclassified and coded accordingly. Trade training has been changed, as required, in accordance with the new trade specifications. During the fiscal year 1951-52, 5,365 groundcrew were given basic training and 785 were given other courses. To accommodate expanding training loads, relocation and re-opening of several training schools was effected. Primary training of officers on guided missiles continued at Clinton, Ont., and advanced training is being undertaken in the United States by selected officers. Guided-missile training in the armament trade of the R.C.A.F. is being investigated for early commencement.

Equipment.—Planes needed for the increased training program, for transport and for operational duties are being obtained by reconditioning, and by procurement of aircraft manufactured in or outside Canada. More than 300 aircraft were reconditioned during the fiscal year 1951-52. The CF-100, the Sabre F-86E and the Harvard trainer were manufactured in Canada. Substantial orders for various aircraft were placed in the United States and the United Kingdom.

The development program on the Rolls Royce Avon-powered CF-100 was intensified during the year. The first Orenda-powered CF-100 was delivered by A. V. Roe Canada Limited, to the R.C.A.F. in November 1951, and all subsequent aircraft will be delivered with Orenda engines installed.

Production of the F-86E at Canadair Limited is proceeding on schedule. The prototype Orenda-powered F-86E made its initial flight in the summer of 1952. Canadair is engineering the design changes required to enable the T33-A aircraft to take the Rolls Royce Nene engine and will produce this aircraft in quantity for training purposes.

The Orenda turbo-jet engine, designed and produced by A. V. Roe Canada Limited, completed over 9,000 hours of running on the test bed and over 300 hours in the Lancaster, the F-86E and the CF-100. The most important achievement during the year was the successful completion of the 150-hour type test with a production engine.

R.C.A.F. Reserve.—In accordance with the new Queen's Regulations (Air), the sub-components of the R.C.A.F. reserves were redesignated as follows: (1) the auxiliary; (2) the primary reserve; and (3) the supplementary reserve.

During the fiscal year 1951-52, the control of auxiliary units in Ontario was transferred from Training Command to Air Defence Command. This was effected because the majority of the units involved were of an Air Defence nature, i.e., squadrons and aircraft control and warning units. At the same time, Training Command was made responsible for the activities of all reserve university squadrons.

Reserve training activities were considerably expanded and summer aircrew training continued for flight cadets of the Canadian Services Colleges and selected university students. The basic training syllabi were condensed to enable the student to reach "wings" standard at the end of his second summer of training and thus to gain practical experience in his third summer through employment in his aircrew trade; altogether, 1,088 flight cadets received flying training during 1951-52.

Formal summer training and on-the-job training continued for selected university students in non-flying list categories. This included basic officer and executive training for all first-year Air Force cadets at Royal Military College, Kingston, Ont., followed by formal training for cadets in certain technical trades. The number of reserve personnel who received either ground or other training was 9,250.

Training of groundcrew personnel of the auxiliary units received added emphasis. New trade specifications were prepared for the majority of reserve trades and training programs were revised to ensure that tradesmen would be capable of doing the work required of them in the operation of auxiliary units. Experience gained in the operation of a technical training unit established at Vancouver in October 1950 resulted in the formation of additional units at Montreal, Hamilton, Toronto, Winnipeg and Edmonton. The purpose of these technical training units is to train personnel of the auxiliary formations in the locality to Group 1 tradesmen standards and to assist in trade advancement training programs.

Reserve University Squadrons.—In the summer of 1951, 783 flight cadets were undergoing training under the University Reserve Training Plan, 84 as aircrew trainees and 699 as non-flying list. On Mar. 31, 1952, a total of 995 were training under this Plan.

Royal Canadian Air Cadets.—Closely associated with the R.C.A.F. are the Royal Canadian Air Cadets, whose establishment was raised during 1950 from 15,000 to 22,500. More than 223 air cadets squadrons are located across Canada

with an enrolment of more than 17,000 cadets, administered by the Air Cadet League of Canada, a voluntary civil organization. The value of cadet training continues to be confirmed by the number of Air Cadets enlisting in the R.C.A.F. regular and reserve forces. During 1951-52, 694 ex-Air Cadets joined the R.C.A.F. regular squadrons and 193 signed on with the reserve.

Subsection 4.—The Defence Research Board

The National Defence Act was amended on Apr. 1, 1947, to provide for the establishment of a Defence Research Board. The Board consists of six *ex officio* and six appointed members serving under a full-time chairman. The *ex officio* members are the Chairman of the Board, the Chiefs of Staff of the three Armed Services, the President of the National Research Council and the Deputy Minister of National Defence. The remaining six members, appointed by the Governor General in Council, are members with scientific and technical qualifications and are drawn from the universities and industry. The organization consists of a headquarters staff, advisory committees and field research stations.

In planning this organization, the Government considered the vital need for continuity in research and planned the Defence Research Board as a fully integrated and permanent part of the defences of the country. To assist co-ordination at the highest level, the Chairman of the Board has the status of a Chief of Staff and is a member of the Chiefs of Staff Committee and of the Defence Council.

The Defence Research Board is an essential part of the defence of Canada and, as such, has been described as a fourth Service. Its fundamental purpose is to correlate the special scientific requirements of the Armed Forces with the general research activities of the scientific community at large. This task is the main function of the Headquarters Staff and its work is strengthened by the expert counsel of comprehensive advisory committees.

It is the policy of the Board to select and concentrate its efforts upon those problems that are of particular importance to Canada or for which Canada has unique resources or facilities. Existing research facilities (for instance, the National Research Council) are used wherever possible to meet the needs of the Armed Forces. The Board has built up new facilities only in those fields that have little or no civilian interest. From the policy of specialization it follows that close collaboration must be maintained with Canada's larger partners. Specialization is made possible only through the willingness of the United Kingdom and the United States to exchange the results of their broader programs for the less numerous but nonetheless valuable benefits of Canadian research.

An important and logical field of specialization for Canada is Arctic research. This interest in Arctic problems is reflected in nearly all the Board's activities. An outstanding example is a program of ionospheric research carried on jointly with the Department of Transport. The north magnetic pole is located on the northern edge of Canada's mainland and the auroral belt, in which ionospheric disturbances make radio communication difficult, is centred around the north magnetic pole and, therefore, extends well down into the inhabited areas of Canada. This means that Canada has unique radio communications problems that are not duplicated elsewhere in the world, except in northern Siberia, and which are of vital importance not only to defence but to civil aviation and communications. It is, therefore, appropriate that Canada should put special effort into this field of research

and that the research should be supported by civil and military parts of the Government. The Board's Radio Physics Laboratory has designed and supplied the special equipment and has trained the operators for a chain of Department of Transport ionospheric observatories which are scattered across the auroral belt. The results of the observations from these stations are analysed at the Radio Physics Laboratory and are used not only to issue current forecasts of the most effective radio transmission frequencies but also in more fundamental research to improve communications in the north. The results are passed to the Central Radio Propagation Laboratory at Washington, U.S.A., where they are used in the compilation of world-wide frequency prediction tables. The whole program is an example of logical specialization and of effective interdepartmental and international co-operation.

New laboratory buildings will be utilized shortly at the Naval Research Establishment at Halifax, N.S.; the Canadian Armament Research and Development Establishment near Ottawa and the Defence Research Kingston Laboratory at Kingston, Ont. Construction has started on new laboratories in Ontario for the Defence Research Medical Laboratory at Toronto and the Defence Research Chemical Laboratories near Ottawa.

Pursuing its established policy, the Defence Scientific Service continues to make available to the scientific community at large those results of its work that have other than a purely military importance.

Close liaison is maintained between the Defence Research Board and the Department of Defence Production to ensure that research and development activities are closely integrated with production.

Section 2.—Services Colleges and Staff Training

Canadian Services Colleges.—The Royal Military College of Canada was founded in 1876 at Kingston, Ont. Royal Roads was established in 1941 near Victoria, B.C., as a school for naval officers. In September 1948, both colleges were constituted as the Canadian Services Colleges to provide a joint educational and training program that would produce officers for the three Armed Services of Canada.

The course at the colleges is of four years' duration, the first two years of which may be taken at either Royal Roads or the Royal Military College. The third and fourth years are taken at the Royal Military College only. Cadets who complete the first two years at Royal Roads proceed to the Royal Military College for the last two years of the general or engineering courses. Fees for the first year total \$580; each succeeding year costs \$330.

Graduates are qualified without further academic training for entrance to any of the three Services, active or reserve, as acting sub-lieutenant in the Navy, lieutenant in the Army or flying officer in the Air Force. Technical course graduates may be sent by the Services for further training to degree standard at specified universities.

A candidate for admission to the colleges must be a British subject between 16 and 21 years of age, have junior matriculation as the minimum education and be physically fit. Qualifying examinations in English or French are required,

followed by a personal interview with the regional board. The final selection of cadets competing in open competitions or on provincial quotas is made by a board appointed by the Minister of National Defence.

Fifteen scholarships of \$500 each are made available each year by the Federal Government on a purely academic basis according to the following provincial quotas: Atlantic Provinces, three; Quebec, four; Ontario, four; Manitoba, one; Saskatchewan, one; Alberta and the Northwest Territories, one; British Columbia and Yukon Territory, one. Up to 15 cadetships, five to each Service, with a value of \$580 each, are provided by the Federal Government to sons of ex-Service and Service personnel. In addition, the following associations award annual scholarships: the Navy League of Canada, the Canadian Infantry Association, the Naval Officers' Association of British Columbia, the Air Cadet League of Canada, the R.C.A.F. Benevolent Fund, the Imperial Order of the Daughters of the Empire, the Ontario Canteen Fund and the Royal Canadian Artillery Memorial Fund. Bursaries are awarded by the Leonard Foundation, the R.C.A. Officers' Regimental Fund Committee and Dominion-Provincial Student Aid.

At Mar. 31, 1952, the Royal Military College had 90 cadets in first year, 68 in second, 118 in third and 72 in fourth. Royal Roads had 78 cadets in first and 68 in second year.

Advanced Training Colleges.—The Canadian Army and the Royal Canadian Air Force operate the undermentioned staff colleges for giving Staff and Command training while the National Defence College provides facilities for advanced study of defence problems.

The National Defence College, Kingston, Ont., is a senior Canadian defence college with a primary objective of co-ordinating defence measures with external and economic policies. First opened on Jan. 5, 1948, senior officers and civil servants from the Armed Forces and government departments attend; also a few representatives from industry are invited to participate in the course of about eleven months' duration.

The curriculum is based on a series of problems dealing with the political, economic and military aspects of Canadian defence. An extensive lecture course is provided, with lecturers chosen from leaders in various fields in Canada, the United States and the United Kingdom. In addition, educational tours and visits to parts of Canada, the United States, Europe and the Middle East are made to give students a more vital knowledge of conditions and influences in their own and other countries.

The Canadian Army Staff College, Kingston, Ont., is a military staff college operating on a permanent basis to train officers for positions of staff and command. The course covers a period of ten months. A joint instructional staff includes faculty members from the three Services, the United States and the British armies. The student body comprises members from the three Services and from five different nations. Aside from purely military subjects, the curriculum provides for intensive study of current world affairs and lectures by prominent guest speakers in this field. Graduates are qualified for Grade II Staff appointments or commands in the Service.

The Royal Canadian Air Force Staff College, Toronto, Ont., is a permanent air force staff college, the training program of which is designed to give officers of Squadron Leader to Group Captain rank the necessary background and knowledge to fit them for Staff and Command positions. The Directing Staff includes officers from the Royal Canadian Air Force, the Canadian Army and the Royal Air Force, while the student body consists of officers from the Royal Canadian Navy, the Canadian Army, the Royal Air Force, the United States Air Force, as well as the Royal Canadian Air Force. Besides the normal organizational and administrative subjects, the curriculum includes an advanced study of the three aspects of air power: air strategy and its relation to ground and sea forces; current world affairs and their effect on the Canadian strategic position; and the industrial potential of the country. Subjects are presented and discussed under the guidance of the Directing Staff or guest speakers, many of whom are prominent in Canadian and United States diplomatic, university and industrial life.

PART II.—DEFENCE PRODUCTION*

Department of Defence Production.—The expansion of the military effort since the United Nations took action in Korea has called for the production of large quantities of weapons and equipment and for a considerable amount of construction. The Department of Defence Production was set up on Apr. 1, 1951, to handle defence procurement, previously carried out by the Minister of Trade and Commerce acting through the Canadian Commercial Corporation. This new Department also undertook responsibility for the control and allocation of essential materials and for the development of Canada's strategic resources.

The Department has three main Branches, two of which are concerned with procurement. (1) The Production Branch deals with commodities the production of which requires special facilities. Such items include aircraft, ships, electronic equipment and military vehicles. (2) The General Purchasing Branch procures commodities either of standard commercial types or of specifications not greatly different from commercial ones, for instance, clothing, food, fuels and barrack stores. (3) The Materials Branch is concerned with ensuring that essential materials are available for direct defence purposes and for the development of strategic resources. This involves the administration of certain controls over the use of essential materials produced in Canada, the arrangement of administrative procedures for the import of materials under restrictions in their country of origin and a general responsibility for matters related to the development of strategic resources.

Defence Orders Placed.—Table 1 shows defence orders, excluding those for stockpiling, by programs, from Apr. 1, 1949, to Mar. 31, 1952. The increase since the outbreak of hostilities in Korea during the summer of 1950 is apparent. Orders placed in the year ended Mar. 31, 1951, were over three times as great as those of the previous year, and orders in 1951-52 were almost eight times the pre-Korean level. The peak period for orders was from July to September 1951.

The aircraft program is the largest and, although the balance of the programs will alter as time goes on, it is likely to remain the largest item because of the importance of airpower to Canada.

* Prepared in the Economics and Statistics Branch of the Department of Defence Production, Ottawa.

1.—Canadian Government Defence Orders, by Programs, Years Ended Mar. 31, 1950-52

NOTE.—Figures exclude stockpiling but include capital assistance.

Program	1949-50	1950-51	1951-52	1951-52, by Quarters			
				Apr.-June	July-Sept.	Oct.-Dec.	Jan.-Mar.
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Aircraft.....	88,517	302,358	486,201	92,529	187,061	67,393	139,218
Shipbuilding.....	4,188	79,171	125,985	66,462	32,256	5,454	21,813
Tanks, automotive.....	12,384	27,137	61,597	19,599	19,015	9,932	13,051
Weapons.....	672	9,061	147,337	11,673	42,089	58,989	34,586
Ammunition and explosives.....	2,413	11,755	129,530	10,457	38,109	63,795	17,169
Electronics and communica- tions equipment.....	16,779	87,098	80,754	20,386	8,463	2,147	49,758
Fuels and lubricant.....	26,073	20,128	34,186	12,430	5,923	1,585	14,248
Clothing and equipage.....	16,711	33,332	171,439	15,831	52,563	46,392	56,653
Building supplies and equip- ment.....	13,179	22,906	29,748	3,177	18,898	4,581	3,092
Construction.....	28,672	67,645	184,488	45,782	55,419	41,666	41,621
Miscellaneous programs ¹	33,326	51,355	106,807	16,329	27,427	31,246	31,805
Components for aircraft ²	—	38,135	206,684	101,590	96,090	9,004	—
Armament and other equip- ment for two infantry divi- sions ³	—	14,684	68,358	35,649	—	32,709	—
Domestic district office orders.....	4	4	68,294	14,783	20,287	16,789	16,435
Totals.....	242,914	764,765	1,901,408	466,677	603,600	391,682	439,449

¹ Food and other subsistence; protective and lifesaving equipment; medical and dental equipment and supplies; photographic equipment and supplies; laboratory, scientific and other instruments; conveying, elevating and material handling equipment; construction, mining and excavating equipment; production equipment; administrative equipment and miscellaneous. ² Equipment, including engines and electronic devices, purchased from the United States Government for incorporation in Canadian-built aircraft.

³ Purchased in the United States to replace United Kingdom-type weapons and equipment sent to Europe under Mutual Aid. ⁴ Up to Apr. 1, 1951, orders placed by the domestic district offices were allocated according to programs.

Table 2 shows defence procurement orders according to the countries in which they were placed. Large government orders were placed in the United States, as the expanded defence program got under way, being especially large during the first two quarters of the fiscal year 1951-52. In the second half of that year, orders to the United States declined rapidly. The proportion of orders placed in the United States rose with the expansion of the defence effort and then tapered off during the fiscal year 1951-52 from over a third in the first quarter to less than a twenty-fifth in the last.

Following a decision to standardize on United States rather than British types of army weapons, plants had to be tooled up to meet new specifications and, while this was being done, heavy initial orders were placed in the United States for equipment of types to be produced later in Canada. The decision to produce, in Canada, existing types of United States aircraft also meant placing heavy orders in that country for components, particularly engines and electronic equipment.

When Canadian production is in full swing, some items such as tanks may still be imported, since Canada's requirements are not large enough to justify laying down a plant for every kind of equipment. The general policy regarding defence production in Canada and the United States is based on the "Statement of Principles for Economic Co-operation", signed by the Canadian and United States Governments on Oct. 1, 1950. This indicates, among other things, that "our two Governments shall co-operate in all respects practicable and to the extent of their respective executive powers, to the end that the economic efforts of the two countries be co-ordinated for the common defence and that the production and resources of both countries be used for the best combined results".

In accordance with this principle, Canada will continue to import a number of items from the United States, but the situation is not one-sided. The United States Government is buying certain aircraft from Canadian firms that are thereby able to operate with the benefits of large-scale production. The planes concerned are the F-86E jet fighter, the Harvard trainer, the Beaver, and the T36-A trainer transport. Guns, too, are being produced in Canada for the United States, both the 3-inch 50-calibre naval gun and the 120mm. gun. The United States Government has placed orders in Canada for explosives, for 90mm. shell cases, and for certain types of small arms ammunition as well as for mobile radar equipment.

2.—Distribution of Canadian Government Defence Orders, by Countries in which Placed, Years Ended Mar. 31, 1950-52

NOTE.—This table includes orders for end items, and capital assistance contracts placed with prime defence contractors.

Country	1949-50	1950-51	1951-52	1951-52, by Quarters			
				Apr.-June	July-Sept.	Oct.- Dec.	Jan.-Mar.
	Values						
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Canada.....	222,423	657,449	1,446,386	287,024	435,701	308,579	415,082
United States.....	15,229	99,090	415,780	177,671	163,423	58,773	15,913
United Kingdom.....	5,205	8,143	39,228	1,977	4,476	24,327	8,448
Other countries.....	57	83	14	5	—	3	6
Totals.....	242,914	764,765	1,901,408	466,677	603,600	391,682	439,449
	Percentages						
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Canada.....	91.5	86.0	76.0	61.5	72.2	78.8	94.5
United States.....	6.3	12.9	21.9	38.1	27.1	15.0	3.6
United Kingdom ¹	2.2	1.1	2.1	0.4	0.7	6.2	1.9
Totals.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ Includes orders to other countries, that were never over one-fortieth of one percent of total orders.

Production Programs, 1951-52.—A new stage in the development of the Canadian aircraft industry was reached in the autumn of 1951 with the delivery to the Royal Canadian Air Force of the first pre-production model of the CF-100 all-weather jet fighter. This is the first all-Canadian jet aircraft for both the airframe and the Orenda engines which power it are produced in Canada. Arrangements for full-scale production are under way and deliveries, under the main production contract, will begin in 1952. The F-86E Sabre, of United States design, is also under production. A number of the aircraft are going to the United Kingdom and to the United States.

The Harvard primary trainer aircraft, also of United States design, began to come off the Canadian production line during the autumn of 1951. Engines were at first imported from the United States but will be produced in a new plant near

Montreal which will also supply spare engines for the large number of Harvards now flying in many parts of the world. The Beaver aircraft is being manufactured to meet large United States orders as well as domestic civilian requirements. This is a Canadian-designed plane for general-purpose use in rugged territory. Full-scale production began during 1952 of the T33-A *Shooting Star* jet trainer. A number of these were received from the United States during 1951 to meet immediate needs. Preparations are being made also for the production of the T36-A trainer transport.

The Orenda engine, entirely of Canadian design, was the first jet engine to be built in Canada. The Rolls Royce Nene engine, which will power the T33-A, will eventually be assembled in Canada.

A number of aircraft stored since World War II were reconditioned and equipped to serve new purposes. Some bombers were converted for use by the Maritime squadrons of the R.C.A.F. and other aircraft were converted for training purposes.

New plants have been set up to manufacture engines and other components. One plant is designed for the manufacture of fuel systems for Orenda engines, and others for the production of magnesium castings and of compressor and turbine blades for jet engines. In the instrument field, a plant is being built to meet Canada's requirements of artificial horizons, now being obtained from the United Kingdom. Arrangements have been made with a Swedish firm to set up a subsidiary plant in this country for the production of engine and instrument bearings. Two United States firms are also establishing plants in Canada for the manufacture of aircraft instruments.

Electronic devices are very important in defence, their main uses being in the field of communication by radio, in the interception of aircraft and ships by radar, in fire control and in the exploding of missiles near their target. Many of Canada's requirements are at present being met from the United States but the Canadian electronics industry is switching from civil to military production. Several plants have been established to produce items new to Canada's economy, including sub-miniature tubes and components, and crystals.

A large quantity of radar and communications equipment for the northern screen of the air defence of this continent is being produced in Canada, together with a large number of anti-aircraft radars and other types of radar for use by the Armed Services. One type of early-warning radar used by anti-aircraft artillery, the No. 4 Mk. VI, will be used extensively in Western Europe as well as in the air defence of Canada. Orders have also been received from the United States for this equipment. Proximity fuses are being produced in Canada for the first time.

A new type of pack radio for use by the infantry was developed in Canada during 1951. It has a range of one mile and is believed to be the best of its type in existence. This equipment will be used extensively by the Canadian Army and by other North Atlantic Treaty countries.

Canadian shipyards are working on orders for 14 escort vessels, 14 minesweepers, 5 gate vessels and an ice breaker, as well as a number of harbour craft. In addition to the new ships, a "Mothball Fleet" of 21 minesweepers and frigates is being converted and refitted. The escort vessels, designed in Canada, except for the propulsion machinery, are the most modern of their kind, equipped with all the latest devices and weapons; the first was launched in November 1951. The minesweepers are being built of aluminum, with the hulls sheathed in wood to reduce their magnetism and the shipyards have developed techniques of handling aluminum

for this purpose. Three of the minesweepers were launched during the fiscal year 1951-52 and the ice breaker, a patrol vessel for northern waters, was launched in December 1951.

The construction of these vessels calls for work elsewhere than in the ship-yards—the manufacture of boilers, turbines, auxiliary engines, deck gear and other components. Most of the contracts for such items have been let in Canada.

Under the weapons program, the major production activity has been in connection with 3-inch 50-calibre naval guns and mountings. Arrangements have also been made for producing the 155mm. and 105mm. howitzer and carriage, the 155mm. gun, and the 105mm. recoilless rifle. Other equipment includes the 60mm. and 81mm. mortars and the 3.5-inch rocket launcher. Contracts placed for small arms were limited, partly because of the failure to obtain agreement on the standardization of small arms and weapons. Orders were placed for 0.50-inch Browning machine guns for the R.C.A.F. Appreciable quantities of anti-aircraft guns, medium field guns, small arms and instrument stores, held in storage by the Department of National Defence, have been overhauled, modified and reconditioned during 1951-52.

Ammunition requirements altered with the change-over to United States types of equipment. In Canada, it was decided to produce ammunition for the 90mm., the 105mm. and the 155mm. artillery equipments for the Army. Naval requirements to be met from domestic sources include 3-inch 50-calibre and 40mm. Bofors rounds, depth charges and other types of anti-submarine projectiles. The Air Force requirements include rockets and small arms ammunition. Explosives for the ammunition are being produced in two plants, one of which manufactures picrite and the other a number of explosives including RDX/TNT and rifle powder. Phosphorus and hexachlorethane are also being made in Canada to government specifications, the latter mainly for export to the United States.

Automobile manufacturers are producing $\frac{1}{2}$ -ton, $\frac{3}{4}$ -ton and $2\frac{1}{2}$ -ton military trucks to joint Canadian-United States specifications. Because of the large capacity of these plants, the output of trucks can be expanded quickly to meet any foreseeable demands from the Armed Services. Other types of military vehicles are being produced in smaller quantities and a number of civilian types of vehicles have been purchased for military use. It has been decided not to establish tank-manufacturing facilities in Canada; Centurion tanks are being purchased from the United Kingdom.

The construction program has involved heavy outlays for barracks and other types of accommodation, buildings for the radar screen, air-strips and other works. These were made necessary by the long-term problems of defence and by increases in the size of the Forces. Orders were placed, during the fiscal year 1951-52, for the construction of 3,400 prefabricated buildings, including 650 Arctic-type huts.

The textile industries have received heavy orders for clothing and for other requirements such as, blankets, mattresses and canvas beds. Most of the clothing and accoutrements not made from broad woven fabrics were ordered in the first half of the fiscal year, but garments such as uniforms and greatcoats made of broad woven fabrics could not be ordered so soon. The cloth was ordered first and, as it became available, contracts were let, mainly during the second half of the fiscal

year, to the cut, make and trim trades largely to meet possible mobilization requirements. As mobilization stores build up, orders are placed at a lower rate. Footwear of both leather and rubber, and other leather goods such as gloves and belts, were ordered for current use and for mobilization stores.

Other requirements of the Armed Forces have also been met, including food, fuel and lubricants, chemicals, medical supplies, photographic stores, laboratory scientific and other instruments, barrack-room stores, furniture and furnishings, and office equipment.

In some cases, defence production has involved the setting up of facilities which will have small residual value after the emergency is over. Under these circumstances, contractors cannot be expected to make capital outlays that may not be fully charged against contracts before the defence work stops. Thus, the Government has authority to provide the contractor with capital assistance in the form either of machinery and equipment or of new buildings or extensions. Everything so provided remains the property of the Crown; buildings are constructed on land owned by the Crown. Some Crown-owned machine tools used during World War II have been rehabilitated and issued to contractors in connection with the present defence drive.

Controls and Priorities.—In the initial stages of the increased defence production it was necessary to direct the use of certain essential materials produced in Canada and elsewhere. The Defence Production Act, Sect. 30, provides that "The Governor in Council may, from time to time, designate as an essential material any material or substance, the control of the supply and use of which is in his opinion essential to ensure the availability of adequate defence supplies or for the construction or operation of defence projects". Orders in Council have designated as essential a number of chemicals and chemical compounds, wood-pulp and newsprint, certain forms of non-ferrous metals and non-metallic minerals, and certain forms of iron and steel.* After a material has been declared essential, the Minister of Defence Production may regulate its production, supply, distribution and use. In the case of non-ferrous metals, control is by an order approval system whereby purchase orders placed by manufacturers are screened in the Department of Defence Production. An order approval system was established for primary and wrought aluminum, primary copper and certain copper products, primary nickel and certain nickel products, cadmium, lead and zinc. Sulphur is controlled under a similar system.* The order approval system for cadmium, lead and zinc was cancelled in May 1952.

In the case of steel, supplies were diverted as necessary to defence and defence-supporting purposes by the direction of individual requirements at the mill, warehousing or fabricating levels. In addition, the use of structural steel for a wide variety of less essential purposes such as, places of amusement, liquor stores, hotels, banks and service establishments was placed on a permit basis in February 1951. A Ministerial Order of January 1952 prevented the accumulation of excessive inventories of steel and ensured that steel would be used for the purpose for which it was acquired.

In addition to the above controls on specific materials, the Minister of Defence Production has general powers for establishing a priority system for any type of essential supplies, under Order in Council P.C. 2399 of May 16, 1951. It has not

* For a list of the Orders in Council and Minister's orders in force at Dec. 31, 1951, see the report of the Department of Defence Production, Apr. 1-Dec. 31, 1951, p. 62.

been necessary to exercise these powers formally to any great degree, and priorities in Canada have been largely dealt with by informal consultation between the Government and representatives of industry.

Since Canadian firms are dependent on the United States for a considerable proportion of their requirements of materials and semi-finished and finished goods, the system of controls in that country has an important effect in Canada. Under the United States Controlled Materials Plan, which governs steel, copper and aluminum, quarterly estimates of Canada's future requirements are made by the Department of Defence Production and are considered in Washington, D.C., along with claims from all segments of the United States economy. An allocation is then made to Canada and distribution to Canadian industry is carried out through the Department. With respect to the general United States Priorities System covering machinery, components and items other than steel, copper and aluminum, the Department screens applications from Canadian firms and assists them in obtaining their approved requirements on a basis generally comparable to that accorded to United States concerns.

When United States procurement agencies or firms have defence requirements in Canada, the Canadian contractor makes application for priority treatment on behalf of the United States customer. By agreement, the Department gives such United States orders treatment comparable to that given to orders for the Canadian defence program.

Strategic Resources.—The industrial effort involved in the defence program is making heavy demands on raw materials which Canada produces, not only for its own defence effort, but also for that of friendly countries. In the case of nickel, in fact, Canada produces about four-fifths of the world supply. Table 3 gives statistics for the leading strategic minerals. The high proportion of output exported is apparent.

3.—Canadian Production, Exports and Imports of Principal Non-Ferrous Metals, 1951

(Thousands of short tons)

Metal	Domestic Production	Exports to—			Imports	Domestic Supply
		United States	United Kingdom	Elsewhere		
Aluminum, primary.....	445	105	191	58	—	91
Copper, refined.....	246	29	52	21	2	146
Lead, refined ¹	162	60	35	11	1	57
Nickel, refined.....	79	70.6	1.6	0.2	—	6.6
Zinc, refined.....	220	84	55	7	—	74

¹ Includes lead smelted from imported ore.

Canadian output of strategic materials, on the whole, increased rapidly in 1951, thus strengthening the base of the defence effort. Table 4 compares the output of a number of strategic commodities in 1951 with that of the previous year. Of special interest are the increases in petroleum and natural gas owing to the development of the western oil fields.

4.—Production of Selected Strategic Commodities, 1950 and 1951

Material	Unit	Actual Output		P.C. Increase or Decrease 1950-51
		1950	1951	
Iron ore.....	'000 short tons	3,617	4,736	30.9
Pig iron.....	"	2,317	2,553	10.2
Steel ingots.....	"	3,300	3,446	4.4
Petroleum, crude.....	'000 bbl. per day	80	132	65.0
Natural gas.....	'000 M cu. ft.	67,822	78,485	15.7
Aluminum, primary.....	'000 short tons	395	445	12.7
Copper, all forms.....	"	262	270	3.1
Lead, all forms ¹	"	170	160	-5.9
Nickel, all forms.....	"	123	138	12.2
Zinc, all forms.....	"	311	334	7.4
Ilmenite.....	"	100	397	297.0
Magnesium.....	"	1.8	3.5	94.4
Cobalt, mine production.....	short tons	313	435	39.0
Tungsten, W. content.....	"	1	14	—
Wood-pulp.....	'000 short tons	8,473	8,989	6.1

¹ From domestic sources, excluding lead smelted from imported ore.

Capital expenditure has been made on a large and increasing scale in order to expand Canada's strategic potential. Table 5 gives investments for 1950 and 1951 and intentions for 1952. For primary iron and steel, investment in 1952 is expected to be about seven times as great as it was in 1950, and for iron-ore mining about four times as great. Investment in the chemical products industry will probably be nearly four times as great in 1952 as in 1950, and in the non-ferrous metals industries over twice as great. The increases in investment in the fields of hydro-electric power and of petroleum and natural gas, though proportionately less, are important in dollar terms because of the heavy investment in those industries. Altogether, about 4 p.c. of the gross national product for 1952 will be devoted to investment in the industries mentioned.

5.—Investment in Development, New Buildings and Machinery in Selected Industries, 1950-52¹

(Millions of dollars)

Industry	1950	1951 ^a	1952 (Intentions)
Non-ferrous metal smelting, refining and processing (including aluminum).....	22.4	39.0	51.3
Iron-ore mining.....	5.7	15.5	23.1
Primary iron and steel.....	14.6	56.1	103.2
Petroleum and Natural Gas—			
Exploration and development.....	64.4	85.8	92.9
Transmission and refining.....	78.6	44.0	85.6
Chemical products.....	26.3	53.2	99.7
Hydro-electric power.....	340.3	451.1	471.9
Totals.....	552.3	744.7	927.7

¹ Prepared in the General Assignments Unit, Dominion Bureau of Statistics.

PART III.—CIVIL DEFENCE*

The accelerating threat of aggression that began shortly after the completion of demobilization following World War II and made necessary the reorganization of military strength, also made apparent the need for the development of a plan of civil defence as part of Canada's program of defence against direct attack. Thus, in October 1948, the Minister of National Defence appointed a Co-ordinator of Civil Defence whose task it was to prepare such a plan. To assist in the co-ordination of the planning, an interdepartmental committee—the Federal Civil Defence Planning Committee—was established, as well as a Federal-Provincial Advisory Committee composed of the federal minister responsible for civil defence as chairman and each provincial minister responsible for civil defence as a member. In February 1951, the administration of civil defence was transferred from the Department of National Defence to the Department of National Health and Welfare.

The Canadian plan was developed after study of similar organizations in the United Kingdom, Western Europe and the United States. It was agreed that civil defence organization should be incorporated within the framework of civil government at each level—federal, provincial and local—each with its own sphere of responsibility. The country is divided into a number of target areas, around each of which is a mutual aid area for immediate support. The territory outside these areas is organized on a mobile support and reception area basis. The channel of communication is from the federal authority to provincial authority and thence to local authority.

The Federal Office of Civil Defence consists of the Civil Defence Co-ordinator and the following services: operations and training, administration and supply, health planning, welfare planning, communications and transportation. A number of other departments are involved in planning, such as the Royal Canadian Mounted Police, the Department of Agriculture, Department of Transport and the Defence Research Board.

In co-operation with the Royal Canadian Air Force, an attack-warning system has been established in all target areas and sirens have been provided by the Federal Government. In co-operation with the Departments of National Defence and Veterans Affairs, a program of stockpiling medical supplies and equipment is in progress across Canada.

The Federal Civil Defence Technical Training School has been operating continuously since January 1951, conducting staff courses for organizers, instructors courses (general and rescue), welfare courses and radiological monitoring courses while courses on damage control and tactical operations are being added. In addition, the Federal Government has sponsored a number of specialist courses for medical personnel. During the autumn of 1951, a special medical team traversed Canada conducting training for nurses in Atomic Biological and Chemical warfare. Also, an agreement is in effect with the St. John Ambulance Association to undertake a large-scale program of first-aid training of civil defence workers for which the Federal Government pays a per capita grant.

Federal assistance to the provinces by way of meeting the costs of administration and purchasing operational requirements consists of a grant amounting to eight cents per capita (based on 1951 Census figures) plus an additional six cents

* Prepared from information supplied by F. F. Worthington, Civil Defence Co-ordinator, Department of National Health and Welfare, Ottawa.

per capita in the main target areas. These federal grants must be equalled by provincial contributions. Also, the Federal Government has offered to bear a portion of the cost of standardizing fire-hose couplings. By mid-1952, Ontario and Alberta had accepted the offer and were proceeding with a standardization program. Large quantities of training equipment have been provided by the Federal Government to the provinces in order to foster their training programs. Draft agreements have also been circulated to all provinces whereby the Federal Government will share, with the provinces on an equal basis, in paying workmen's compensation, where necessary, to a civil defence worker.

During the year ended Mar. 31, 1952, 14 civil defence manuals were published by the Federal Government to assist in organizing, training and general education, in addition to which a considerable amount of guiding literature was issued to assist provincial and local governments.

Each province has developed its own civil defence organization, patterned on that of the Federal Government. Certain provinces have conducted civil defence training courses similar to those of the Federal Government with the object of training local instructors and key personnel.

Civil defence organization at local level consists of the following services: police, fire, health, ambulance, welfare, rescue, engineer, public utilities, communication, transportation and information. Many of the main centres of population have made considerable advances in organization and training. An estimated 50,000 civil defence workers were reported on strength as at Mar. 31, 1952.

During 1951 an agreement was made between Canada and the United States whereby each country pledged itself to go to the assistance of the other in event of attack. A number of working groups have been formed to carry out specific tasks in the development of ways and means of carrying out this agreement. The provinces of Canada, too, have discussed with adjoining states of the United States the working out of their mutual problems. In this regard also, close liaison has been kept with the United Kingdom and other NATO countries.

CHAPTER XXVIII.—OFFICIAL SOURCES OF STATISTICAL AND OTHER INFORMATION

CONSPECTUS

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PART I.—SOURCES OF OFFICIAL INFORMATION

Section 1.—Federal Government Information Services*

The chief source of statistical information on all phases of the economy of Canada is the Dominion Bureau of Statistics where the decennial and quinquennial censuses are planned and statistical information of all kinds—federal and provincial—is centralized. In regard to information that is not mainly statistical, the individual Departments concerned with the particular subject should be contacted as indicated in the Directory at pp. 1190-1211. Certain Government bodies and national agencies, because of the nature of their work and the appeal it has to broad sections of the population, are organized primarily as information or publicity agencies. Among these are: the Information Division, Department of External Affairs, which deals with questions about external affairs originating in Canada and with general requests originating abroad; for information on Canada and Canadian affairs, the Information Branch, Department of Trade and Commerce; the Information Services Division, Department of National Health and Welfare; the Canadian Broadcasting Corporation; and the National Film Board. The Departments of Agriculture, Resources and Development and Mines and Technical Surveys, while not thus classed, are interested in the dissemination of information to a greater extent than most other Government Departments, and several other Departments have Publicity Branches or Public Relations Divisions.

Government Departments, with few exceptions, issue their own lists of reports and publications. Departments are required by statute to publish annual reports which are tabled each year in the House of Commons by their respective Ministers. However, for the purpose of this Section, only the services of the six information agencies mentioned above are described.

Section 2 has been prepared with the purpose of presenting to the reader a directory of all sources of information, federal and provincial, and thereby directing the reader to the proper channels from which he can draw material relating to any particular subject.

*Revised in the Divisions mentioned in the text of this Section.

The Dominion Bureau of Statistics.—The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43). In 1948, this statute, which had been consolidated as the Statistics Act (R.S.C. 1927, c. 190), was repealed and replaced by the Statistics Act (11-12 Geo. VI, c. 45).

The chief aims of the Dominion Bureau of Statistics are: (1) to furnish statistical data, bearing on Canada, for government and administration, whether municipal, provincial, national or international; and (2) to assist in meeting the needs of non-governmental users of statistics, arising from a growing awareness of the value of statistics to business efficiency and social security.

Inquiries.—Hundreds of individual requests for information are received in the Bureau each day, routed through the appropriate divisions and answered as expeditiously as possible. Since the field of effort, from the statistical side, deals with all phases of the national economy, there is scarcely a subject upon which the Bureau is not able to give some information. Nevertheless, only inquiries of a statistical nature should be directed to the Dominion Bureau of Statistics.

Publications.—The Dominion Bureau of Statistics is the principal publication agency of the Federal Government; the subjects of its reports cover all aspects of the national economy.

The policy with regard to the distribution of publications is to extend the service to the public as widely as possible at a minimum cost. A special subscription rate of \$30 per annum entitles the subscriber to receive as issued a copy of each Report, including the daily News Bulletin. Statistical information not of general interest is published as Reference Papers or Memoranda and additional subscription rates of \$5 and \$15 respectively, are charged for all issues of these two categories. A discount of 25 p.c. is allowed on the excess over \$5 of single purchases totalling between \$5 and \$20: on single purchases of between \$20 and \$50 the discount is 50 p.c. of the excess over \$20.

A complete list of Bureau publications is available from the Dominion Statistician. Orders for reports should be sent to the Dominion Bureau of Statistics, Ottawa, giving the correct title or titles of the publication or series of reports in which the applicant is interested and should include the necessary remittance in the form of a cheque or money-order made payable to the Receiver General of Canada.

Information Division, Department of External Affairs.—The Information Division has two functions: to promote within Canada interest in and knowledge of international affairs, and to make Canada and Canadian policies better known and understood abroad.

To perform the first function, the Division produces and distributes various documents on external affairs—statements of government policy and reports on related developments abroad and on the work of the Department generally. The Division also answers inquiries from Canadian sources on these subjects (except for

inquiries from the press which are handled by the Department's Press Office) as well as requests for information about Canada made by Diplomatic Missions at Ottawa, by Canadian posts abroad, and by individuals and organizations in other countries.

Most of the information work abroad is done, however, by officials at Canadian posts. The Information Division assists by formulating and advising on information policy abroad, in an effort to ensure that this policy is related to the general objectives of Canadian foreign policy, and by producing and procuring material to keep Missions informed of developments within Canada. Journalists, and others who visit Canada to write of Canadian affairs, are given assistance from time to time by the Division; its responsibilities also include the co-ordination of the Government's activities in the field of cultural relations.

Information Branch, Department of Trade and Commerce.—Information, pertaining specifically to trade, is obtainable from this Branch, which maintains close liaison with all other Branches and Divisions of the Department and with a number of Crown companies. It is responsible for the production of *Foreign Trade and Commerce Extérieur*, the weekly publications of the Foreign Trade Service, and for the preparation of brochures, some of which are required for distribution at trade fairs in other countries; information is also made available to Canadian Trade Commissioners for distribution within their respective territories. The Branch is closely identified with the Canadian International Trade Fair, although promotional literature is distributed directly from the headquarters of that organization at Toronto, Ont.

Information Services Division, Department of National Health and Welfare.—The responsibility of this Division, in co-operation with other divisions of the Department of National Health and Welfare and provincial authorities, is the production and distribution of educational material on health, welfare, social security and civil defence, for use throughout the country. This information, issued in the English and French languages, includes books, pamphlets, periodicals, posters, exhibits, displays, radio dramatizations, press and magazine features and releases, as well as films and film-strips prepared in co-operation with the National Film Board. Books, pamphlets, posters and displays are distributed in Canada through provincial authorities. The most important periodicals published by the Division are *Canada's Health and Welfare* (monthly), *Canadian Nutrition Notes* (monthly), *Industrial Health Bulletin* (monthly), *Industrial Health Review* (semi-annually) and *Nutrition Bulletin* (annually).

Canadian Broadcasting Corporation.—Radio broadcasting is an important medium of information to the public along with newspapers, films and other means of communication. Radio broadcasting in Canada is a combination of a publicly owned national system and privately owned local community stations, many of which are affiliated with the Canadian Broadcasting Corporation's networks.

Since its establishment in 1936, the Canadian Broadcasting Corporation has become one of the most effective channels through which information, official and unofficial, is broadcast to the people of Canada. Radio is relatively more important

in Canada than in most other countries, because of the widely distributed population and the number of sparsely peopled areas, and the CBC has gradually bridged the gaps with high-powered transmitters designed to serve rural as well as urban areas. The CBC has also pioneered in the development of low-powered repeater stations attached to the network lines, that serve areas unable, because of topographical conditions, to receive an adequate signal from any existing station.

News broadcasts and information programs occupy a considerable proportion of national and regional network time and include news, drama, informative talks, children's programs, school broadcasts, public-service broadcasts, sports, women's activities, etc. Listeners have a very wide range of radio fare, since the CBC not only produces its own programs in the various production centres across Canada, but brings in selected programs from the networks in the United States, the British Broadcasting Corporation, and other national radio systems. The CBC maintains a bureau at London, England, and at United Nations Headquarters, New York, and is credited with having done more to inform listeners of the United Nations' activities than any other broadcasting system.

Through the International Shortwave Service, operated by the CBC on behalf of the Federal Government, programs are broadcast in fifteen languages: English, French, Czech, German, Dutch, Norwegian, Danish, Swedish, Finnish, Italian, Russian, Portuguese, Spanish, Slovak and Ukrainian. The CBC International Service broadcasts information abroad on life and economic conditions in Canada as part of the general information plan for promoting a better understanding of Canada in other countries. Since the CBC shortwave transmitters at Sackville, N.B., have the strongest signal reaching Europe from this side of the Atlantic, the transmitters are made available to United Nations radio, for regular transmissions, free of charge.

The National Film Board.—The National Film Board is dedicated to the visual interpretation of Canada in motion pictures, film-strips and stills, both for Canadians and for the better understanding of Canada abroad. (For details of subjects, see pp. 348-350.) Since its establishment in 1939, the Board has produced some 2,700 films in English, French and foreign-language versions and more than 500 film-strips. It has built up a library of some 100,000 still pictures, adding about 7,000 prints annually. As a service to Government Departments and other official bodies, the Board maintains a film preview library of approximately 3,900 NFB and other prints, and 520 film-strips. The Board also acts as official photographer for the Government, recording and preserving occasions of historic interest, such as *Royal Journey*, the Board's first full-length colour feature, which was distributed to theatres the world over.

The Board's activities are carried on by four branches—Production, Technical Operations, Distribution and Administration—their titles indicating the nature of their operations. Current production rate is about 200 film projects annually and approximately the same number of film-strips, including language versions.

Maintenance of high technical quality of films is assisted by operations and research of the Technical Operations Branch, responsible recently for developing a dual sound track which permits two language versions on one film.

In Canada, non-theatrical 16 mm. and 35 mm. theatrical prints are distributed, the former through regional offices in each province to interested groups, including about 7,900 voluntary film-using organizations, while the latter are placed in theatres through commercial distributors on a contract basis.

Distribution of non-theatrical films is assisted by 330 film libraries and 340 film councils. Provincial educational and other agencies promote the use and distribution of films for educational and informational purposes. This work is organized, stimulated and correlated by the Board through a staff of 62 field men whose combined efforts brought NFB films to an audience of over 11,000,000 persons in 149,922 screenings in 1952. The Distribution Branch services posts of the Departments of External Affairs and Trade and Commerce in 45 countries in addition to NFB offices at London, New York and Chicago.

Newsreel and television distributions are growing rapidly, the latter currently comprising about 2,500 bookings annually. The Board works in co-operation with the Canadian Government Travel Bureau, distributing films through 66 outlets in the United States.

Section 2.—Directory of Sources of Official Information (Federal and Provincial)

To make the best use of the Directory of Sources of Government Official Information, it is necessary that the reader understands the broad differences in function between federal and provincial departments and their separate fields of work.

Certain fields of effort, such as trade and commerce, customs and excise, currency and banking, navigation, transportation, radio, census of population, national defence, etc., are constitutionally federal affairs and, in such fields, the respective Departments at Ottawa are the proper sources with which to communicate. Other fields of effort, such as the administration of lands and natural resources, education, roads and highways, and health and hospitals, are the responsibility of the provinces under the British North America Act, but certain Federal Departments are also concerned with specific aspects of these subjects and, as is the case of the Dominion Bureau of Statistics, in the co-ordinating and presentation of the material for Canada as a whole.

As a general guide to the public, it may be pointed out that questions relating to the actual development and administration of resources should be forwarded to the particular provinces concerned. The Federal Government, while not administering the resources within provincial boundaries, co-operates closely with the provinces and is in a position to furnish material for Canada, especially production data, on a national basis, marketing data on international, national and provincial bases, research work and experimental station data on a national basis, and also on

a provincial basis from Federal Government stations located within particular provinces. In agriculture, for instance, data on the breeding of live stock and the improvement of strains, on agricultural marketing and crop yields are cases in point; in forestry, questions of forest research, forest fire protection and reforestation offer good examples. Where inquiries are directed to federal sources, they should, as a general rule, be sent to the individual departments listed in the Directory for information not of a statistical nature; in the case of statistical information inquiries should be addressed to the Dominion Bureau of Statistics, Ottawa.

Bearing these points in mind, the reader will be able to apply the information given in the Directory to best advantage.

The Queen's Printer and Controller of Stationery, Ottawa, charged, under the Public Printing and Stationery Act, with responsibility for the sale and free distribution of government publications, issues a Monthly Catalogue of all Federal Government publications, regular selected titles, bulletins and library check lists. The Monthly Catalogue, including the price list, is consolidated annually, classified on a departmental basis adequately indexed and cross-referenced, and is obtainable on application at \$3.00 a year. The Supervisor of Government Publications, Ottawa, also publishes subject catalogues and special bulletins advertising new government publications. The titles of some publications produced for free distribution only, and obtainable from the issuing federal departments, are listed in the Monthly Catalogue published by the Queen's Printer. Lists of publications are often available, too, from the individual Departments.

Most provincial government printed publications may be obtained from the Queen's Printer of the Province concerned. Inquiries should be addressed to the provincial capital cities:—

Newfoundland.....	St. John's	Ontario.....	Toronto
Prince Edward Island..	Charlottetown	Manitoba.....	Winnipeg
Nova Scotia.....	Halifax	Saskatchewan.....	Regina
New Brunswick.....	Fredericton	Alberta.....	Edmonton
Quebec.....	Quebec	British Columbia.....	Victoria

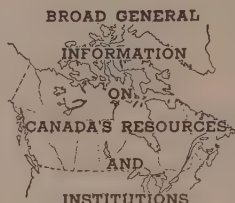
Inquiries about the Yukon and Northwest Territories should be addressed to Ottawa, Ont.

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION

Sources for Federal Data

Dept. of Trade and Commerce
Information Branch
Dominion Bureau of Statistics
Dept. of Mines and Technical
Surveys
Dept. of Resources and Development
Editorial and Information Division
Dept. of External Affairs
Information Division (general re-
quests originating in all countries
outside Canada)
Dept. of Citizenship and Immigration
Canadian Citizenship Branch
Dept. of Fisheries, Information and
Educational Services
National Film Board (films, film-
strips, photographs on all subjects)
Dept. of Transport
Information Bureau

Subject



Sources for Provincial Data

For broad general information in regard to particular provinces application should be made to: Nfld., Dept. of Provincial Affairs; P.E.I., Tourist and Information Bureau; N.S., Dept. of Trade and Industry; N.B., Dept. of Industry and Recon-
struction or Dept. of Provincial Secretary-Treasurer; Que., Bureau of Statistics; Ont., Bureau of Statistics and Research or Dept. of Travel and Publicity; Man., Dept. of Industry and Commerce, Travel and Publicity Bureau and Dept. of Provincial Secretary; Sask., Bureau of Publications; Alta., Publicity Bureau, Dept. of Economic Affairs; B.C., Bureau of Economics and Statistics.

Dept. of Agriculture
Information Service
Experimental Farms Service (sta-
tions and farms throughout
Canada)
Dept. of Resources and Development
(Yukon and Northwest Territories)
Dept. of Citizenship and Immigration
Indian Affairs Branch
Dept. of Veterans Affairs (veterans
only)
Dept. of Finance (farm improvement
loans)
Canadian Farm Loan Board (long-
term mortgage loans)
Central Mortgage and Housing
Corporation (long-term mortgage
loans)
National Film Board (films, photo-
graphs)
Dominion Bureau of Statistics

AGRICULTURE GENERAL AND FARMING

P.E.I., N.S., N.B., Sask., Depts.
of Agriculture
Nfld.—Dept. of Mines and Re-
sources
Que.—Dept. of Agriculture, Infor-
mation and Research Branch
Dept. of Trade and Commerce
Bureau of Statistics
Ont.—Dept. of Agriculture, Sta-
tistics and Publication Branch
Man.—Dept. of Agriculture and Im-
migration, Publications Branch
and Extension Service
Alta.—Dept. of Agriculture
Dept. of Industries and Labour
Provincial Bureau of Statistics
B.C.—Dept. of Trade and Industry
Bureau of Economics and Statistics
Dominion Bureau of Statistics (sum-
maries of provincial data)

National Film Board (films, filmstrips
and photographs)
Dept. of Mines and Technical Surveys
Editorial and Information Division
Geological Survey of Canada
Branch
Surveys and Mapping Branch
Geographical Branch
Dept. of Resources and Development
Editorial and Information Division
Northern Administration Division
Dept. of Citizenship and Immigration
Editorial and Information Division
Indian Affairs Branch

ARCTIC

Dept. of Mines and Technical Sur-
veys
Dominion Astrophysical Observ-
atory, Victoria, B.C.
Dominion Observatory, Ottawa,
Ont.

ASTRONOMY

Atomic Energy Control Board
(policy, regulations)
Atomic Energy of Canada Limited
(research studies, sale of radio-
isotopes)
Eldorado Mining and Refining, 1944,
Limited
National Film Board (films)

ATOMIC ENERGY

Sources for Federal Data

[Subject

Sources for Provincial Data

Dept. of Transport
Civil Aviation Division (controls, licences and facilities, such as radio aids and licences)
Air Transport Board (licensing of commercial air services and the economic regulation of such air services)
Bureau of Transportation Economics
Trans-Canada Air Lines
Dept. of National Defence
Directorate of Public Relations (Air Force)
Dept. of National Health and Welfare
Civil Aviation Medicine Division
National Film Board (films and photographs)
National Research Council
Division of Mechanical Engineering (aeronautical research)
Dominion Bureau of Statistics

AVIATION

Ont.:—Dept. of Lands and Forests, Air Service
Man.:—Manitoba Government Air Services
Sask.:—Saskatchewan Government Airways

Bank of Canada
Industrial Development Bank
Dept. of Finance
Dept. of Insurance (for trust and loan business, administers also the Small Loans Act)
Central Mortgage and Housing Corporation
Post Office Department, Savings Branch
Dominion Bureau of Statistics (for summary statistics)

BANKING
Trust and Loan
Companies

Nfld.:—Dept. of Finance
Supreme Court, Registry of Deeds
P.E.I.:—Dept. of Provincial Secretary
Que.:—Dept. of Finance, Insurance Branch
Dept. of Trade and Commerce
Bureau of Statistics
Ont.:—Province of Ontario Savings Office
Attorney-General, Dept. of Insurance
Sask.:—Registrar of Securities
Alta.:—Government of Alberta Treasury Branches
B.C.:—Dept. of Finance, Inspector of Trust Companies

BIRTHS
See "Vital Statistics"

Dept. of National Health and Welfare
Blindness Control Division
Old Age Assistance Division

BLINDNESS
ALLOWANCES

Sources same as for "Old Age Assistance" excepting:
P.E.I.:—Director of Blind Persons' Allowances
B.C.:—Blind Persons Allowance Board

BROADCASTING
See "Radio"

Dept. of Public Works
Chief Architect's Branch
Dept. of Resources and Development
Engineering and Water Resources Branch
Central Mortgage and Housing Corporation
National Research Council, Division of Building Research (materials of construction, building codes, soil and snow mechanics)
Dept. of National Health and Welfare
Hospital Design Division
Dominion Bureau of Statistics

BUILDING
CONSTRUCTION

P.E.I.:—Dept. of Industry and Natural Resources
Ont.:—Dept. of Labour, Factory Inspection Branch
Dept. of Planning and Development
Community Planning Branch
Man.:—Dept. of Labour
Alta.:—Dept. of Industries and Labour
Provincial Bureau of Statistics
B.C.:—Dept. of Finance, Public Housing
Dept. of Labour, Factory Inspection Branch
Dept. of Trade and Industry
Bureau of Economics and Statistics

Sources for Federal Data	Subject	Sources for Provincial Data
Department of Transport Canal Services Dominion Bureau of Statistics	CANALS	
Dept. of Citizenship and Immigration Canadian Citizenship Registration Branch Canadian Citizenship Branch National Film Board (films, filmstrips, photographs)	CITIZENSHIP See also "Population"	
	CIVIL AVIATION See "Aviation"	
Dept. of National Health and Welfare Civil Defence Division	CIVIL DEFENCE	Nfld.:—Dept. of Attorney General N.S.:—Chairman, Civil Defence, Province House Ont.:—Chairman, Civil Defence Committee Man.:—Dept. of Attorney-General Sask.:—Director of Civil Defence, Dept. of Social Welfare and Rehabilitation Alta.:—Co-ordinator of Civil Defence, Dept. of Municipal Affairs B.C.:—Dept. of Provincial Secretary
Dept. of Transport Meteorological Division, Toronto	CLIMATE	Que.:—Dept. of Lands and Forests Meteorological Bureau Dept. of Trade and Commerce Bureau of Statistics B.C.:—Dept. of Agriculture
Dept. of Mines and Technical Surveys Geological Survey, Mines Branch National Film Board (films, filmstrips, photographs) Dominion Coal Board Dominion Bureau of Statistics	COAL	N.S., Que., Ont.:—Depts. of Mines N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources, Mines Branch Sask.:—Dept. of Natural Resources Alta.:—Dept. of Mines and Minerals B.C.:—Dept. of Lands and Forests Dept. of Mines
Dept. of Resources and Development Northern Administration and Lands Branch (wireless communication in the Yukon and Northwest Territories) National Parks Branch (telephones in National Parks) Board of Transport Commissioners (regulation of certain telegraph and telephone companies) Dept. of Transport Telecommunication Division—radio communications; aviation radio and marine radio; Government telegraph and telephone services (telegraph and telephone services in remote areas) Canadian Overseas Telecommunication Corporation Dept. of Mines and Technical Surveys Dominion Bureau of Statistics	COM- MUNICATIONS For 'Post Office' and 'Mail' See "Post Office"	Nfld.:—Dept. of Economic Development P.E.I.:—Tourist and Information Bureau Que.:—Public Service Board Transportation Board Ont.:—Municipal Board and Bureau of Statistics and Research Man.:—Manitoba Telephone System Sask.:—Dept. of Telephones Alta.:—Dept. of Railways and Telephones B.C.:—Dept. of Railways R.C.M.P. Provincial Headquarters

Sources for Federal Data	Subject	Sources for Provincial Data
Dept. of National Health and Welfare Physical Fitness Division (recreational layouts and facility suggestions) Federal District Commission National Film Board (films, photographs) Central Mortgage and Housing Corporation Community Planning Association of Canada	COMMUNITY PLANNING	P.E.I.:—Dept. of Industry and Natural Resources N.S., Que., Sask.:—Depts. of Municipal Affairs Ont.:—Dept. of Planning and Development, Community Planning Branch Man.:—Depts. of Municipal Commissioner and Mines and Natural Resources, Surveys Branch Alta.:—Dept. of Public Works, Town Planning Board B.C.:—Dept. of Trade and Industry, Regional Development Division Dept. of Municipal Affairs Regional Planning Division
Dept. of Resources and Development National Parks Branch, Canadian Wildlife Service Northern Administration and Lands Branch Forestry Branch Federal District Commission Dept. of Agriculture Experimental Farms Service Economics Division Prairie Farm Rehabilitation Administration Maritime Marshlands Rehabilitation Administration Dept. of Fisheries Conservation and Development Services National Film Board (films, photographs) Department of Mines and Technical Surveys	CONSERVATION	Nfld.:—Dept. of Mines and Resources P.E.I.:—Dept. of Industry and Natural Resources N.S., Alta., B.C.:—Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Que.:—Dept. of Lands and Forests Dept. of Game and Fisheries Dept. of Hydraulic Resources Ont.:—Dept. of Lands and Forests Dept. of Planning and Development, Conservation Branch Ontario Agricultural College, Guelph Man.:—Dept. of Mines and Natural Resources Sask.:—Dept. of Natural Resources Dept. of Agriculture
Dept. of Secretary of State Privy Council Public Archives Dominion Bureau of Statistics	CONSTITUTION	All Provinces except B.C.:—Depts of Attorney General B.C.:—Provincial Secretary
Dominion Bureau of Statistics	CONSUMER PRICE INDEX See also "Cost of Living"	
Dept. of Defence Production	CONTROLS AND PRIORITIES	
Dept. of Agriculture Economics Division Dept. of Fisheries Market and Economic Services Central Mortgage and Housing Corporation (mortgage lending activities)	CO-OPERATIVES (including Credit Unions)	Nfld.:—Dept. of Fisheries and Co-operatives P.E.I.:—Dept. of Agriculture N.S.:—Dept. of Provincial Secretary N.B.:—Dept. of Agriculture Que.:—Dept. of Agriculture Dept. of Trade and Commerce, Bureau of Statistics Ont.:—Dept. of Agriculture Co-operation and Markets Branch Man.:—Dept. of Agriculture and Immigration, Co-operative Services Branch Sask.:—Dept. of Co-operatives and Co-operative Development Alta.:—Dept. of Industries and Labour B.C.:—Attorney-General's Dept., Registrar of Companies

Sources for Federal Data	Subject	Sources for Provincial Data
<p>Dominion Bureau of Statistics</p>	COST OF LIVING	<p>N'f'ld.:—Dept. of Municipal Affairs and Supply Alta.:—Dept. of Industries and Labour Provincial Bureau of Statistics B.C.:—Dept. of Trade and Industry Bureau of Economics and Statistics</p>
<p>Dept. of Resources and Development Northern Administration and Lands Branch National Parks Branch National Museum of Canada Dept. of Citizenship and Immigration Indian Affairs Branch (Indian handicrafts) National Gallery of Canada National Film Board (films, filmstrips, photographs) Dept. of Veterans Affairs (veterans only) Public Archives Dept. of National Health and Welfare Physical Fitness Division (theatre arts and handicrafts)</p>	CREATIVE ARTS AND HANDICRAFTS	<p>N'f'ld.:—Dept. of Education P.E.I.:—Tourist and Information Branch N.S.:—Dept. of Trade and Industry, Handicrafts Division Nova Scotia College of Art N.B.:—Dept. of Industry and Development, Handicraft Division The New Brunswick Museum, Saint John Que.:—Dept. of Agriculture (rural handicrafts) Ont.:—Royal Ontario Museum Dept. of Education Man.:—Dept. of Agriculture and Immigration (handicrafts) Sask.:—Dept. of Education, Adult Education Division Alta.:—Dept. of Economic Affairs (cultural activities) B.C.:—Provincial Museum (Indian handicrafts)</p>
<p>Dept. of Justice Clemency Branch The Penitentiary Commission Dept. of National Health and Welfare Research Division National Film Board (films, photographs) Dominion Bureau of Statistics</p>	CRIME AND DELINQUENCY	<p>All Provinces:—Depts. of Attorney General Additional— N'f'ld., N.S.:—Depts. of Public Welfare P.E.I., B.C.:—Depts. of Health and Welfare Que.:—Dept. of Social Welfare and Youth Ont.:—Dept. of Reform Institutions Man.:—Dept. of Health and Public Welfare Sask.:—Dept. of Social Welfare and Rehabilitation Alta.:—Dept. of Public Welfare</p>
<p>Dept. of Secretary of State (for incorporation of companies) Dept. of Trade and Commerce, Dept. of Defence Production and the National Research Council (for administration of Crown Companies) Dept. of Transport Canadian Overseas Telecommunication Corporation</p>	CROWN COMPANIES	<p>For information with regard to individual Crown Companies apply as follows: N'f'ld.:—Dept. of Economic Development P.E.I.:—Dept. of Industry and Natural Resources Ont.:—Dept. of Provincial Secretary Man.:—Treasury Dept. Sask.:—Office of Chief Industrial Executive B.C.:—Attorney-General's Dept.</p>
<p>Bank of Canada Dept. of Finance Royal Canadian Mint Dominion Bureau of Statistics</p>	CURRENCY	
	CUSTOMS AND EXCISE See "Taxation"	

Sources for Federal Data

Dept. of Agriculture
Animal Husbandry Division
Dairy Products Division
Bacteriology and Dairy Research Division
National Film Board (films, photographs in co-operation with the Dept. of Agriculture)
Dominion Bureau of Statistics

Subject

DAIRYING

Sources for Provincial Data

N'f'd.:—Dept. of Mines and Resources
P.E.I., N.S.:—Depts. of Agriculture
N.B., Ont., Alta., B.C.:—Depts. of Agriculture, Dairy Branches (also Milk Control Board for Ont. and B.C.)
Que.:—Dept. of Agriculture, Dairy Commission
Dept. of Trade and Commerce
Bureau of Statistics
Man.:—Dept. of Agriculture and Immigration, Milk Control Board, Dairy Branch
Sask.:—Dept. of Agriculture, Dairy Commission

DEATHS
See "Vital Statistics"

Dept. of National Defence
Director of Public Relations
Directorates of Naval Information
Public Relations (Army)
Public Relations (R.C.A.F.)
Public Relations (Defence Research Board)
Dept. of Defence Production
Canadian Commercial Corporation
Defence Construction (1951) Limited
Canadian Arsenal Limited
Dept. of National Health and Welfare
Civil Defence Co-ordinator

DEFENCE

Dept. of Defence Production

DEFENCE
CONTRACTS

Bank of Canada
Dept. of Trade and Commerce
Economics Division
Dept. of Labour
Economics and Research Branch
Legislation Branch
Dept. of Mines and Technical Surveys
Dept. of Resources and Development
Administration Branch
Engineering and Water Resources Branch
Forestry Branch
Northern Administration and Lands Branch (for Eskimos)
Dept. of National Health and Welfare
Research Division
Dept. of Agriculture
Economics Division
Board of Transport Commissioners
Bureau of Transportation Economics
Dept. of Fisheries
Market and Economic Services
Central Mortgage and Housing Corporation
Dept. of Defence Production
Dominion Bureau of Statistics

ECONOMIC
AND SOCIAL
RESEARCH

N'f'd.:—Dept. of Economic Development
P.E.I.:—Dept. of Industry and Natural Resources
N.S.:—Dept. of Trade and Industry, Nova Scotia Research Foundation
N.B.:—Dept. of Industry and Development
Que.:—Dept. of Trade and Commerce, Economic Research Bureau
Ont.:—Bureau of Statistics and Research
Man.:—Dept. of Industry and Commerce, Bureau of Industrial Development
Executive Council, Economic Advisor
Sask.:—Economic Advisory and Planning Board
Alta.:—Director of Industrial Development and Economic Research
Dept. of Economic Affairs
B.C.:—Dept. of Trade and Industry
Bureau of Economics and Statistics

Sources for Federal Data	Subject	Sources for Provincial Data
Canadian Broadcasting Corporation (school broadcasts) Dept. of Resources and Development Northern Administration and Lands Branch (N.W.T.) Dept. of Mines and Technical Surveys Dept. of National Health and Welfare Dept. of Citizenship and Immigration Canadian Citizenship Branch Indian Affairs Branch Dept. of Veterans Affairs (veterans only) Dept. of Labour Canadian Vocational Training Branch Dept. of Fisheries Information and Educational Services National Gallery of Canada Dominion Bureau of Statistics	EDUCATION For 'Informational Films' See "Motion Pictures"	All Provinces: —Depts. of Education (technical, visual, audio and all other phases of education) <i>Additional:</i> —Que.:—Dept. of Trade and Commerce, Bureau of Statistics
Dept. of Resources and Development Engineering and Water Resources Branch Northwest Territories Power Commission National Film Board (films, filmstrips and photographs) Dominion Bureau of Statistics (central electric stations)	ELECTRIC POWER	N'f'ld.: —Dept. of Economic Development P.E.I.: —Public Utility Commission N.B.: —New Brunswick Electric Power Commission N.S., Sask., Alta., B.C.: —Power Commissions Que.: —Hydro-Electric Commission Dept. of Hydraulic Resources Ont.: —The Hydro-Electric Power Commission of Ontario Man.: —Dept. of Mines and Natural Resources, Hydro Electric Board Dept. of Public Utilities <i>Additional:</i> —B.C.:—Dept. of Lands and Forests
Dept. of Labour National Employment Service Economics and Research Branch Civil Service Commission (opportunities for, and conditions of, employment in the Federal Civil Service) Dominion Bureau of Statistics	EMPLOYMENT	All Provinces: —Depts. of Agriculture (farm labour) N'f'ld., N.S., Man.: —Depts. of Labour Que.: —Dept. of Labour, Provincial Employment Bureau Ont.: —Dept. of Labour Bureau of Statistics and Research Alta.: —Dept. of Industries and Labour
Dept. of Trade and Commerce Canadian Government Exhibition Commission Dept. of Agriculture Information Service National Film Board (films, photographs) National Gallery of Canada Dept. of Resources and Development Canadian Government Travel Bureau (sportsmen's shows)	EXHIBITIONS	N.B.: —Dept. of Agriculture Que.: —Dept. of Agriculture Dept. of Trade and Commerce Ont.: —Most Ontario Departments organize exhibitions Man.: —Dept. of Agriculture and Immigration, Extension Service Dept. of Industry and Commerce Alta.: —Dept. of Economic Affairs B.C.: —Depts. of Agriculture, Trade and Industry
Dept. of Mines and Technical Surveys Explosives Division	EXPLOSIVES	B.C.: —Dept. of Mines
Dept. of External Affairs Information Division Press Office	EXTERNAL AFFAIRS	
Dept. of National Health and Welfare Family Allowances Division	FAMILY ALLOWANCES	

Sources for Federal Data

Subject

Sources for Provincial Data

Dept. of Agriculture
Field Husbandry Division
Forage Crops Division
Economic Fibre Division
Plant Products Division
National Film Board (films and photographs)
Dominion Bureau of Statistics

FIELD CROPS

Nfld.:—Dept. of Mines and Resources
P.E.I., N.S., N.B.:—Depts. of Agriculture
Que.:—Dept. of Agriculture
Dept. of Trade and Commerce
Bureau of Statistics
Ont.:—Dept. of Agriculture, Crops, Seeds and Weeds Branch
Man.:—Dept. of Agriculture and Immigration
Sask., Alta., B.C.:—Depts. of Agriculture, Field Crop Branches

Dept. of Finance
Bank of Canada
Dominion Bureau of Statistics

FINANCE
See also "Taxation"

Nfld., B.C.:—Depts. of Finance
P.E.I.:—Provincial Treasurer
N.S.:—Dept. of Provincial Treasurer
N.B.:—Dept. of Provincial Secretary-Treasurer
Que.:—Dept. of Finance
Dept. of Trade and Commerce
Bureau of Statistics
Ont.:—Provincial Treasurer's Dept.
Man., Sask., Alta.:—Provincial Treasury Depts.

Dept. of Insurance
Fire Prevention Branch (fire loss statistics)
Dept. of Resources and Development
Forestry Branch
Board of Transport Commissioners (forest-fire protection along railway lines)
National Film Board (films, photographs, in relation to government prevention and conservation programs)

FIRE
PREVENTION

All Provinces:—Provincial Fire Marshals (for urban and rural fire losses)
Nfld.:—Dept. of Mines and Resources
N.S., Alta., B.C.:—Depts. of Lands and Forests
N.B.:—Dept. of Lands and Mines
Que.:—Dept. of Lands and Forests
Forest Protection Service; Dept. of Public Works, Fire Commissioner
Ont.:—Dept. of Lands and Forests, Forest Protection Division
Man.:—Dept. of Mines and Natural Resources; Dept. of Labour, The Fire Commissioner
Sask.:—Dept. of Natural Resources

Dept. of Fisheries
Information and Educational Services
Fisheries Research Board of Canada
National Film Board (films, photographs)
Dominion Bureau of Statistics

FISHERIES

Nfld.:—Dept. of Fisheries and Co-operatives
P.E.I.:—Dept. of Industry and Natural Resources
N.S.:—Dept. of Trade and Industry
Fisheries Division
N.B.:—Dept. of Industry and Development, Fisheries Branch
Que.:—Dept. of Game and Fisheries
Dept. of Trade and Commerce, Bureau of Statistics
Ont.:—Dept. of Lands and Forests
Fish and Wildlife Division
Man.:—Dept. of Mines and Natural Resources, Game and Fisheries Branch
Sask.:—Dept. of Natural Resources, Fisheries Branch
Alta.:—Dept. of Lands and Forests, Fish and Game Branch
B.C.:—Dept. of Fisheries
Provincial Game Commission

FOOD AND DRUGS

See "Standards"
and "Nutrition"

Sources for Federal Data	Subject	Sources for Provincial Data
Bank of Canada	FOREIGN EXCHANGE	
Dept. of Resources and Development Forestry Branch National Film Board (films, film- strips, photographs) Dept. of Agriculture Division of Forest Biology Dominion Bureau of Statistics	FOREST RESOURCES	N'f'd.:—Dept. of Mines and Re- sources P.E.I.:—Dept. of Industry and Natural Resources N.S., Que., Ont., Alta., B.C.:— Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources, Forestry Branch Sask.:—Dept. of Natural Resources
	FRUIT See "Horticulture"	
	FUEL See "Coal", "Oil", "Forest Resources"	
Dept. of Agriculture Marketing Service (fur grading) Experimental Farms Service (ranch fur production) National Film Board (photographs) Dominion Bureau of Statistics (gen- eral fur products statistics)	FUR FARMING See also "Trapping"	N'f'd.:—Dept. of Mines and Re- sources P.E.I., N.B., Alta., B.C.:—Depts. of Agriculture N.S., Ont.:—Depts. of Lands and Forests Que.:—Dept. of Agriculture Dept. of Trade and Commerce Bureau of Statistics Man.:—Dept. of Mines and Natural Resources, Game and Fisheries Branch Sask.:—Dept. of Natural Resources
Dept. of Mines and Technical Surveys Geographical Branch Canadian Board on Geographical Names Public Archives Dept. of Agriculture Field Husbandry Division (soil surveys)	GEOGRAPHY	N'f'd.:—Dept. of Mines and Re- sources Man.:—Dept. of Mines and Natural Resources Alta.:—Geographic Board B.C.:—Dept. of Lands and Forests
Dept. of Mines and Technical Surveys Geological Survey	GEOLOGY	N'f'd.:—Dept. of Mines and Re- sources N.S., B.C.:—Depts. of Mines N.B.:—Dept. of Lands and Mines Que.:—Dept. of Mines Geological Surveys Branch Ont.:—Dept. of Mines Geological Branch Man.:—Dept. of Mines and Natural Resources, Mines Branch Sask.:—Dept. of Natural Resources Alta.:—Dept. of Mines and Minerals
Dept. of Secretary of State (Federal- Provincial channel of com- munication) Chief Electoral Office (Electoral Act and Voters Lists) Clerk of the Privy Council (appoint- ments, orders in council, sta- tutory orders and regulations) Dept. of Citizenship and Immigration Canadian Citizenship Branch Dept. of Resources and Development (for Yukon and N.W.T.)	GOVERNMENT For 'Senate of Canada', 'House of Commons' and 'Library of Parliament' See "Parliament"	N'f'd.:—Dept. of Provincial Affairs P.E.I., N.S., Ont., Man., Sask., Alta., B.C.:—Depts. of Prov- incial Secretary N.B.:—Dept. of Provincial Secretary- Treasurer Que.:—Office of Provincial Secretary

Sources for Federal Data	Subject	Sources for Provincial Data
<p>Dept. of National Health and Welfare Health Branch National Film Board (films, filmstrips, photographs) Dept. of Resources and Development (for N.W.T.) Dominion Bureau of Statistics (hospital statistics)</p>	<p>HEALTH For 'Health of Veterans' See "Veterans Affairs"</p>	<p>Nfld., Que., Ont.:—Depts. of Health P.E.I.:—Dept. of Health and Welfare N.S., Sask., Alta.:—Depts. of Public Health N.B.:—Dept. of Health and Social Services Man.:—Dept. of Health and Public Welfare B.C.:—Dept. of Health and Welfare (general) Dept. of Provincial Secretary (mental hospitals) British Columbia Hospital Insurance Commission</p>
	<p>HIGHWAYS See "Transportation"</p>	
<p>Public Archives Dept. of Resources and Development National Parks Branch (historic sites and monuments) Dept. of National Defence Directorate of Public Relations (war histories, official war summaries, etc.) Dept. of Citizenship and Immigration Canadian Citizenship Branch Dominion Bureau of Statistics</p>	<p>HISTORY</p>	<p>Nfld.:—Legislative Library Gosling Memorial Library N.S.:—Public Archives N.B.:—Legislative Library Que.:—The Archives Ont.:—Legislative Library Bureau of Statistics and Research Provincial Archivist Man.:—Provincial Library and Archives Sask.:—Archives Board Alta.:—Archives, Provincial Library B.C.:—Dept. of Education Provincial Archivist</p>
<p>Dept. of Agriculture Marketing Service, Fruit and Vegetable Division Experimental Farms Service, Horticulture Division Dominion Bureau of Statistics</p>	<p>HORTICULTURE</p>	<p>Nfld.:—Dept. of Mines and Resources P.E.I.:—Dept. of Agriculture N.S., N.B., Sask., Alta., B.C.:—Depts. of Agriculture, Horticultural Branches Que.:—Dept. of Agriculture, Fruit Branch Ont.:—Dept. of Agriculture, Horticulture and Horticulture Branches Man.:—Dept. of Agriculture and Immigration</p>
	<p>HOUSE OF COMMONS See "Parliament"</p>	
	<p>HOUSING See "Building Construction"</p>	
<p>Dept. of Citizenship and Immigration Immigration Branch District Superintendents of Immigration, Halifax, Montreal, Toronto, Winnipeg and Vancouver Dept. of Labour Special Services Branch Dept. of National Health and Welfare Quarantine, Immigration Medical and Sick Mariners Division National Film Board (films, photographs) Dominion Bureau of Statistics</p>	<p>IMMIGRATION</p>	<p>P.E.I.:—Dept. of Industry and Natural Resources Ont.:—Dept. of Planning and Development Bureau of Statistics and Research Man.:—Dept. of Agriculture and Immigration Sask.:—Dept. of Social Welfare and Rehabilitation Alta.:—Dept. of Economic Affairs B.C.:—Dept. of Trade and Industry</p>

Sources for Federal Data	Subject	Sources for Provincial Data
	INCOME TAX See "Taxation"	
National Gallery of Canada	INDUSTRIAL DESIGN	
	INDUSTRIAL DEVELOPMENT See "Manufacturing"	
Dept. of Insurance (Dominion. British and foreign companies. Federal Civil Service insurance) Dept. of Labour Annuities Branch Dept. of Veterans Affairs Veterans Insurance Branch Dept. of Trade and Commerce Export Credits Insurance Cor- poration Dominion Bureau of Statistics (sum- mary statistics of all types of insurance)	INSURANCE, LIFE, FIRE, ETC. For 'Unemployment Insurance' See "Labour"	N'f'd.:—(for Provincial Companies) Dept. of Finance P.E.I., N.S., N.B., Man., Sask., Alta., B.C.:—(for Provincial Companies):—Superintendents of Insurance Que.: (for Provincial Companies):— Provincial Treasury Dept., In- surance Branch Ont.: (for Provincial Companies):— Dept. of Insurance
Dept. of Mines and Technical Surveys Dept. of Defence Production National Film Board (films and photographs) Dominion Bureau of Statistics	IRON AND STEEL	N'f'd.:—Dept. of Mines and Re- sources N.S.:—Dept. of Mines Research Foundation Ont.:—Dept. of Planning and De- velopment, Trade and Industry Branch Bureau of Statistics and Research Man.:—Dept. of Industry and Com- merce B.C.:—Dept. of Mines
Dept. of Justice Dominion Bureau of Statistics	JUSTICE	All Provinces:—Depts. of Attorney General
Dept. of Labour Information and Publicity Branch Annuities Branch Legislation Branch Unemployment Insurance Com- mission Economics and Research Branch Canada Labour Relations Board Canadian Vocational Training Branch Industrial Relations Branch (con- ciliation of labour disputes, fair wages, etc.) International Labour Organization Branch National Employment Service National Advisory Council on Manpower National Advisory Committee on the Rehabilitation of Disabled Persons Dept. of Secretary of State (registra- tion of trade unions) National Film Board (films, photo- graphs) Dominion Bureau of Statistics	LABOUR See also "Workmen's Compensation"	N'f'd., N.S., N.B., Que., Ont., Man., Sask., B.C.:—Depts. of Labour Alta.:—Dept. of Industries and Labour Additional:—Que., Ont., Alta., B.C.:—Provincial Bureaus of Statistics

Sources for Federal Data

Subject

Sources for Provincial Data

Dept. of Resources and Development
Northern Administration and
Lands Branch (Yukon and
N.W.T.)
Dept. of Veterans Affairs
Dept. of Citizenship and Immigration
Immigration Branch (for land
settlement)
Dept. of Transport
Lands Branch

LANDS AND
LAND
SETTLEMENT

N'f'ld.:—Dept. of Mines and Re-
sources
P.E.I.:—Commissioner of Public
Lands
N.S.:—Dept. of Agriculture, Land
Settlement Board
N.B.:—Dept. of Lands and Mines
Que.:—Dept. of Lands and Forests
Dept. of Colonization
Ont., Alta., B.C.:—Depts. of Lands
and Forests
Man.:—Dept. of Mines and Natural
Resources, Lands Branch
Sask.:—Dept. of Agriculture

Royal Canadian Mounted Police
(Enforces Federal Statutes in all
parts of Canada; also carries out,
on behalf of Attorneys General
and under contract, enforcement
of the Criminal Code and Provin-
cial Statutes in all provinces
except Quebec and Ontario; is
the only law enforcement body
in the Yukon and Northwest
Territories and assists in the
welfare of Eskimos and Indians
in these territories. The Minister
in control of the Force is the
Minister of Justice.)

LAW
ENFORCEMENT

All Provinces:—Depts. of the
Attorney General

Clerk of the Senate of Canada
Clerk of the House of Commons
Dept. of Resources and Development
(for Yukon and Northwest
Territories)

LEGISLATION
For Statutory Orders
and Regulations
See "Government"

All Provinces except Man. and
B.C.:—Depts. of Attorney Gen-
eral
Man.:—Legislative Counsel
B.C.:—Dept. of Provincial Secretary

Dept. of Resources and Development
Northern Administration and
Lands Branch
(Yukon and Northwest Territories)
Dept. of Secretary of State (adminis-
tration of Canada Temperance
Act)

LIQUOR
CONTROL

N'f'ld.:—Dept. of Finance
P.E.I.:—Temperance Commission
N.S., Que., Sask.:—Liquor Com-
missions
N.B., Ont., Alta., B.C.:—Liquor
Control Boards
Man.:—Liquor Control Commission

Dominion Bureau of Statistics (sta-
tistical report covering Canada)

Dept. of Agriculture
Live Stock and Live-stock Products
Division (for marketing data)
Live-stock and Poultry Division
(for breeding programs and
testing data)
Health of Animals Division (for
administration of disease control
regulations, meat inspection,
etc.)

LIVE STOCK

N'f'ld.:—Dept. of Mines and Re-
sources
P.E.I., N.B., Ont., Sask., Alta.,
B.C.:—Depts. of Agriculture
Live-stock Branches
N.S., Que.:—Depts. of Agriculture
Animal Husbandry Branches
Man.:—Dept. of Agriculture and
Immigration, Live Stock Branch
Additional:—Que., Alta., B.C.:—
Provincial Bureaus of Statistics

Animal Husbandry Division (for
general information)
Animal Pathology Division (re-
search in animal diseases)
Dept. of Trade and Commerce
Agricultural Commodities Branch
National Film Board (films, photo-
graphs, in relation to Dept. of
Agriculture)
Dominion Bureau of Statistics

LUMBERING

Dept. of Resources and Development
Forestry Branch
National Film Board (films, film-
strips, photographs, in relation
to departmental conservation
and development programs)
Dominion Bureau of Statistics

N'f'ld.:—Dept. of Mines and Re-
sources
P.E.I.:—Dept. of Industry and
Natural Resources
N.S., Que., Ont., Alta.:—Depts.
of Lands and Forests
N.B.:—Dept. of Lands and Mines
Man.:—Dept. of Mines and Natural
Resources, Forestry Branch
Sask.:—Dept. of Natural Resources
B.C.:—Dept. of Lands and Forests
Dept. of Trade and Industry
Bureau of Economics and
Statistics

Sources for Federal Data

Subject

Sources for Provincial Data

MAIL

See "Post Office"

Dept. of Secretary of State (for incorporation of companies and Companies Act)
 Dept. of Trade and Commerce
 Industrial Development Division
 Bank of Canada
 Industrial Development Bank
 National Research Council
 Canadian Patents and Development Limited (utilization of new scientific processes)
 National Film Board (films, filmstrips and photographs)
 National Gallery of Canada (for industrial designs)
 Dominion Bureau of Statistics

MANUFACTURING
See also "Crown Companies"

P.E.I.:—Dept. of Industry and Natural Resources
 N.S., B.C.:—Dept. of Trade and Industry
 N.B.:—Dept. of Industry and Development
 Que.:—Dept. of Trade and Commerce
 Ont.:—Dept. of Planning and Development, Trade and Industry Branch
 Man.:—Dept. of Industry and Commerce
 Bureau of Industrial Development
 Sask.:—Economic Advisory and Planning Board
 Alta.:—Dept. of Economic Affairs
 Additional:—Que., Ont., Alta., B.C.:—Bureaus of Statistics

Dept. of Mines and Technical Surveys
 Geological Survey; Surveys and Mapping Branch (geological, topographical and general maps; hydrographic and navigation charts)
 Dept. of Agriculture (soil survey and economic survey maps)
 Public Archives (maps relating to history and cartography)
 Dept. of Fisheries
 Information and Educational Services (fisheries maps)
 Dept. of Transport (meteorological maps)
 Dominion Bureau of Statistics (economic and census maps)

MAPS AND CHARTS

N'f'ld.:—Dept. of Mines and Resources
 P.E.I.:—Dept. of Public Works and Highways
 N.S.:—Dept. of Mines, Research Foundation
 N.B.:—Dept. of Lands and Mines
 Que., Alta., B.C.:—Depts. of Lands and Forests
 Ont.:—Dept. of Lands and Forests
 Dept. of Mines
 Man.:—Dept. of Mines and Natural Resources, Surveys Branch
 Sask.:—Dept. of Public Works
 Dept. of Natural Resources

MARRIAGES

See "Vital Statistics"

Dominion Bureau of Statistics

MERCHANDISING

Man.:—Dept. of Industry and Commerce
 Bureau of Industrial Development
 Alta.:—Dept. of Industries and Labour
 B.C.:—Dept. of Trade and Industry

Dept. of Mines and Technical Surveys
 Mines Branch
 Geological Survey
 Dept. of Defence Production
 Dominion Bureau of Statistics (for production data)

METALS
(other than
Iron and Steel)

N'f'ld.:—Dept. of Mines and Resources
 N.S., Que., Ont., B.C.:—Depts. of Mines
 N.B.:—Dept. of Lands and Mines
 Man.:—Dept. of Mines and Natural Resources, Mines Branch
 Sask.:—Dept. of Natural Resources
 Alta.:—Dept. of Mines and Minerals

METEOROLOGY

See "Weather"

Sources for Federal Data

Subject

Sources for Provincial Data

Dept. of Mines and Technical Surveys
Dept. of Resources and Development (for Yukon and Northwest Territories)
Dept. of Defence Production
Dominion Bureau of Statistics (for production data)

MINING AND MINERALS

N'f'ld.:—Dept. of Mines and Resources
N.S., Que., Ont., B.C.:—Depts. of Mines
N.B.:—Dept. of Lands and Mines
Man.:—Dept. of Mines and Natural Resources, Mines Branch
Sask.:—Dept. of Natural Resources
Alta.:—Dept. of Mines and Minerals

National Film Board
(Produces documentary films, news-reels and short subjects for theatrical, non-theatrical and television distribution: film-strips and photographs for informational, educational and archives purposes and other visual materials devoted to the interpretation of the Canadian scene to audiences both at home and abroad; and maintains a large film preview library for the benefit of Government Departments and other official bodies.)
Dept. of National Health and Welfare
Information Services Division
Physical Fitness Division
National Gallery of Canada
(Maintains a library of art films.)

MOTION PICTURES

N.S., Que., Alta. and B.C. produce educational or informational films
N'f'ld., P.E.I., N.B., Ont. and Man. buy such films but do not produce them
Sask.:—Saskatchewan Film Board
Alta.:—Dept. of Economic Affairs, Photographic Branch
B.C.:—Dept. of Trade and Industry, Photographic Branch
All provinces have Motion Picture Censorship Boards for censoring films prior to public exhibition. Details may be obtained by application to the province concerned: Depts. of Education and Travel, Provincial Censorship Boards and Regional National Film Board Offices.

Dominion Bureau of Statistics
Public Finance and Transportation Division

MUNICIPAL AFFAIRS

N'f'ld.:—Dept. of Municipal Affairs and Supply
P.E.I.:—Dept. of Industry and Natural Resources
N.S., N.B., Que., Ont., Sask., Alta., B.C.:—Depts. of Municipal Affairs
Man.:—Dept. of Municipal Commissioner

National Gallery of Canada
Public Archives (and Military Museum)
Dept. of Resources and Development
National Parks Branch
National Museum of Canada
Historic Parks Museums

MUSEUMS

Not including provincial universities in Sask., Alta. and B.C.
N'f'ld.:—Dept. of Provincial Affairs
N.S.:—Nova Scotia Museum of Fine Arts, Public Archives of Nova Scotia, Provincial Museum of Nova Scotia, Halifax
N.B.:—New Brunswick Museum, Saint John
Que.:—The Archives, Musée de la Province de Québec, Quebec; Commercial and Industrial Museum of Montreal
Ont.:—Royal Ontario Museum (including Archaeology, Geology, Mineralogy, Palaeontology and Zoology); Ontario Archives, Toronto
Man.:—Manitoba Museum, Winnipeg
Sask.:—Provincial Museum of Natural History, Regina
B.C.:—Provincial Museum of Natural History and Anthropology, Provincial Archives (including Helmcken House), Victoria

Dominion Bureau of Statistics

NATIONAL INCOME

Dept. of Citizenship and Immigration
Canadian Citizenship Registration Branch

NATURALIZATION
See
also "Population"

Sources for Federal Data	Subject	Sources for Provincial Data
Dept. of Public Works (construction and operation of graving docks), Chief Engineer's Branch (for Marine works construction) Dept. of Transport Marine and Canal Services (aids to marine navigation) Telecommunication Division (radio aids to navigation) Canadian Maritime Commission National Research Council Division of Radio and Electrical Engineering (applications of radar to navigation) Dept. of Mines and Technical Surveys Hydrographic Service National Harbours Board	NAVIGATION	
Dept. of National Health and Welfare Nutrition Division Dept. of Agriculture Dept. of Fisheries Inspection and Consumer Services	NUTRITION	N'f'ld., Que., Ont.:—Depts. of Health P.E.I., B.C.:—Depts. of Health and Welfare N.S., Alta.:—Depts. of Public Health N.B.:—Dept. of Health and Social Services Man.:—Dept. of Health and Public Welfare Sask.:—Dept. of Public Health Nutrition Division
	OCCUPATIONAL INFORMATION See "Employment"	
Dept. of Resources and Development (for Yukon and Northwest Territories) Dept. of Mines and Technical Surveys Geological Survey, Mines Branch Dept. of Defence Production National Film Board (films, filmstrips, photographs) Dominion Bureau of Statistics	OIL	N'f'ld.:—Dept. of Mines and Resources N.S., Ont.:—Depts. of Mines N.B.:—Dept. of Lands and Mines Man.:—Dept. of Mines and Natural Resources, Mines Branch Sask.:—Dept. of Natural Resources Alta.:—Dept. of Mines and Minerals B.C.:—Dept. of Lands and Forests
Dept. of National Health and Welfare Old Age Assistance Division Dept. of Resources and Development Northern Administration and Lands Branch (for N.W.T.)	OLD AGE ASSISTANCE	N'f'ld., N.S., B.C.:—The Old Age Assistance Board P.E.I., Ont.:—Director of Old Age Assistance N.B.:—The Old Age and Blind Assistance Board Que.:—Quebec Social Allowance Commission Man.:—The Old Age Assistance and Blind Persons' Allowance Board Sask.:—Social Welfare Board Alta.:—Old Age Pension Board
Dept. of National Health and Welfare Old Age Security Division	OLD AGE SECURITY PENSIONS	
Dept. of Resources and Development National Parks Branch National Film Board (films, photographs) Federal District Commission	PARKS	N.S., Ont., Alta., B.C.:—Depts. of Lands and Forests N.B.:—Dept. of Lands and Mines Que.:—Dept. of Game and Fisheries Man.:—Dept. of Mines and Natural Resources, Forestry Branch Sask.:—Dept. of Natural Resources Parks Branch

Sources for Federal Data	Subject	Sources for Provincial Data
Senate of Canada House of Commons Library of Parliament	PARLIAMENT	Nfld.:—Dept. of Provincial Affairs P.E.I., N.B., Man., Sask., Alta., B.C.:—Legislative Assemblies N.S., Ont.:—Houses of Assembly Que.:—Legislative Council Legislative Assembly
Dept. of Secretary of State	PATENTS, COPY- RIGHTS AND TRADE MARKS	
Post Office Department Philatelic Division of the Financial Branch	PHILATELY	
Dept. of Mines and Technical Surveys The National Air Photographic Library National Film Board <i>(Maintains an extensive library of photographs covering all branches of production and national effort.)</i> Public Archives (prints, paintings, photographs, etc., relating to the history of Canada)	PHOTOGRAPHIC MATERIAL	
Dept. of National Health and Welfare Physical Fitness Division National Council on Physical Fitness Dept. of Resources and Development National Parks Branch Canadian Government Travel Bureau Education Branch (for N.W.T.) National Film Board (films, film- strips, photographs, in connec- tion with the Dept. of National Health and Welfare) Dept. of Citizenship and Immigration Indian Affairs Branch (for Indians)	PHYSICAL FITNESS AND RECREATION <i>See also "Health"</i>	P.E.I., N.S., N.B., Ont., Sask., Alta., B.C.:—Depts. of Edu- cation Man.:—Dept. of Health and Public Welfare
Dominion Bureau of Statistics (for all census population statistics) Dept. of Resources and Development Northern Administration and Lands Branch (for Eskimos) Dept. of Citizenship and Immigration Canadian Citizenship Branch Citizenship Registration Branch Indian Affairs Branch (for Indians) Public Archives (early census and settlement records)	POPULATION	Que.:—Dept. of Health. Vital Statistics Branch Dept. of Trade and Commerce Bureau of Statistics Ont.:—Bureau of Statistics and Research Man.:—Dept. of Industry and Com- merce Alta.:—Dept. of Industries and Labour, Provincial Statistician B.C.:—Dept. of Health and Welfare Vital Statistics Dept. of Trade and Industry Bureau of Economics and Sta- tistics
Post Office Department Administration Branch (general postal information, postage rates, both domestic and for- eign, etc.) Communications Branch (air, land and railway mail services) Financial Branch (information regarding money orders, savings bank, philatelic services, etc.) Operations Branch (information regarding postal service to the public and hours of service)	POST OFFICE	

Sources for Federal Data	Subject	Sources for Provincial Data
Dept. of Agriculture Poultry Division, Experimental Farms Service (for general information) Live Stock and Live-stock Pro- ducts Division (marketing in- formation) Live-stock and Poultry Division (breeding programs, hatchery regulations, etc.) Animal Pathology Division (for poultry diseases) National Film Board (films and photographs) Dominion Bureau of Statistics	POULTRY	N'f'ld.:—Dept. of Mines and Re- sources P.E.I., N.S.:—Depts. of Agriculture N.B., Sask., Alta., B.C.:—Depts. of Agriculture, Poultry Branches Que.:—Dept. of Agriculture Poultry Division Ont.:—Ontario Agricultural College (Guelph), Poultry Division Man.:—Dept. of Agriculture and Immigration
	POWER See "Electric Power"	
Dept. of Agriculture Marketing Service (prices of farm products) Dept. of Fisheries Fisheries Prices Support Board Dominion Bureau of Statistics	PRICES	
	PUBLIC HEALTH See "Health"	
Dominion Bureau of Statistics	PUBLIC UTILITIES See also "Electric Power"	N'f'ld., P.E.I.:—Public Utilities Boards N.S.:—Board of Commissioners of Public Utilities N.B., B.C.:—Public Utilities Com- missions Que.:—Public Service Board Ont.:—Ontario Municipal Board Man.:—Dept. of Public Utilities Sask.:—Office of Chief Industrial Executive Alta.:—Board of Public Utilities Commissioners Natural Gas Utilities Board
	PUBLIC WELFARE See "Welfare"	
Dept. of Labour Industrial Relations Branch (fair wages) Dept. of Public Works Dept. of Transport Marine, Canal and Air Services	PUBLIC WORKS	N'f'ld., P.E.I., N.B., Que., Ont., Man., Sask., Alta., B.C.:— Depts. of Public Works N.S.:—Dept. of Highways and Public Works
Dept. of Transport Telecommunications Division (all matters affecting licences and facilities) Canadian Broadcasting Corpora- tion (national broadcasting in Canada, regulations for control of programs, international service and television) National Research Council Division of Radio and Electrical Engineering (radio science and its application to industry) Dominion Bureau of Statistics (na- tional radio)	RADIO	
	RAILWAYS See "Transportation"	

Sources for Federal Data

Subject

Sources for Provincial Data

Dept. of Resources and Development
Engineering and Water Resources
Branch
Central Mortgage and Housing
Corporation

RECON-
STRUCTION

Nfld.:—Dept. of Economic De-
velopment
P.E.I.:—Dept. of Industry and
Natural Resources
N.S.:—Depts. of Agriculture and
Marketing, and Trade and In-
dustry
N.B.:—Dept. of Industry and De-
velopment
Que.:—Depts. of Lands and Forests,
Labour, Roads, Trade and Com-
merce, Social Welfare and Youth
Ont.:—Dept. of Planning and De-
velopment
Man.:—Dept. of Industry and Com-
merce
Sask.:—Dept. of Social Welfare and
Rehabilitation, Reconstruction
Division
B.C.:—Dept. of Trade and Industry
Regional Development Division
Dept. of Finance, Public
Housing

RECREATION
See
"Physical Fitness"

Dept. of Veterans Affairs
Dept. of Labour
Dept. of National Health and
Welfare

REHABILITATION

RESEARCH
See "Economic
and Social
Research" and
"Scientific
Research"

National Research Council
(Laboratory investigations in ap-
plied biology, building research,
chemistry, mechanical engineer-
ing, including aeronautics and
hydraulics, physics, radio and
electrical engineering, medical
research, etc.)

*Inquiries for general research
information should be addressed
to the Technical Information
Service.*

Dept. of Mines and Technical
Surveys
Dept. of Resources and Development
Forestry Branch
National Parks Branch, Canadian
Wildlife Services, National Mus-
eum of Canada
Dept. of Agriculture
Science Service (for research in
animal and plant pathology,
bacteriology, chemistry, ento-
mology, etc.)
Experimental Farms Service (for
research in agricultural engineer-
ing, crop production, breeding
and genetics, plant and animal
nutrition, etc.)
Dept. of Transport (aviation, radio,
meteorology, navigation)
Dept. of National Defence
Defence Research Board, Direc-
torate of Public Relations
Dept. of Fisheries
Fisheries Research Board of Canada
Dept. of National Health and Welfare

SCIENTIFIC
RESEARCH

N.S.:—Nova Scotia Research Found-
ation
Que.:—Dept. of Trade and Com-
merce, Scientific Research Bu-
reau
Ont.:—Research Council of Ontario
Ontario Research Foundation
Man.:—Various Depts. such as
Health and Welfare, Mines and
Natural Resources, Agriculture
and Immigration, Industry and
Commerce
Sask.:—Research Council
Alta.:—Alberta Research Council
B.C.:—Dept. of Trade and Industry
Research Council

Sources for Federal Data

Subject

Sources for Provincial Data

SOCIAL
SECURITY

See

"Family
Allowances"
"Blindness
Allowances"
"Old Age
Assistance"
"Old Age
Pensions"
"Workmen's
Compensation"
"Labour"
"Unemployment"
"Veterans Affairs"
"Economic and
Social Research"

SOCIAL WELFARE

See "Welfare"

SPORTS

See

"Physical Fitness"
and "Tourist Trade"

Dept. of Trade and Commerce
Standards Branch (for inquiries
on electricity and gas inspection,
weights and measures, precious
metals marking, commodity
standards and national trade
mark matters)
Dept. of National Health and
Welfare (for standards and
method of control of quality or
potency of food and drugs)
Dept. of Agriculture (for inquiries
on standards for meat and
canned food, fruit, honey, maple
products, vegetables, dairy prod-
ucts, poultry, etc.)
Dept. of Transport (standards in
radio frequencies, standards in
steamship inspection)
National Research Council (funda-
mental physical standards,
Canadian Government Speci-
fication Board)
Dept. of Fisheries
Inspection and Consumer Services
(standards of fish products)

STANDARDS

STEAMSHIPS

See

"Transportation"

SUCCESSION
DUTIES

See "Taxation"

Sources for Federal Data	Subject	Sources for Provincial Data
<p>Dept. of National Revenue Taxation Division Customs and Excise Division</p>	TAXATION	<p>N'f'ld., Que.:—Depts. of Finance P.E.I.:—Provincial Treasurer N.S.:—Dept. of Provincial Secretary N.B.:—Dept. of Provincial Secretary-Treasurer Ont.:—Provincial Treasurer's Dept. Man., Sask., Alta.:—Provincial Treasury Depts. B.C.:—Dept. of Finance, Surveyor of Taxes Additional:—Alta.:—Provincial Secretary</p>
	TELEGRAPHS AND TELEPHONES See "Communications"	
<p>Dept. of Mines and Technical Surveys Surveys and Mapping Branch</p>	TOPOGRAPHY	<p>N'f'ld.:—Dept. of Mines and Resources N.S.:—Dept. of Mines, Nova Scotia Research Foundation N.B.:—Dept. of Lands and Mines Ont.:—Dept. of Lands and Forests, Surveys Branch Man.:—Dept. of Mines and Natural Resources Alta., B.C.:—Depts. of Lands and Forests</p>
<p>Dept. of Resources and Development National Parks Branch Canadian Government Travel Bureau Dept. of Trade and Commerce Canadian Government Exhibition Commission (displays) National Film Board (films and photographs) Dominion Bureau of Statistics</p>	TOURIST TRADE	<p>N'f'ld.:—Dept. of Economic Development P.E.I.:—Tourist and Information Branch N.S.:—Dept. of Public Health, Publicity Bureau N.B.:—New Brunswick Travel Bureau Que.:—Provincial Tourist Bureau Ont.:—Dept. of Travel and Publicity Man.:—Dept. of Industry and Commerce, Bureau of Travel and Publicity Sask.:—Bureau of Publications, Tourist Branch Alta.:—Dept. of Economic Affairs, Alberta Travel Bureau B.C.:—Dept. of Trade and Industry, Government Travel Bureau</p>
<p>Dept. of Trade and Commerce Trade Commissioner Service Commodities Branch (for exports, imports, transportation, etc.) Agriculture and Fisheries Branch Economics Division Industrial Development Division Information Branch International Trade Relations Branch Canadian Government Exhibition Commission Export Credits Insurance Corporation Standards Branch (weights and measures) International Economic and Technical Co-operation Division (Colombo Plan) Dept. of Resources and Development Canadian Government Travel Bureau Dept. of Secretary of State (for Companies Act and incorporation of companies and of boards of trade) National Film Board (films, filmstrips, photographs, for exhibition publicity purposes) Dominion Bureau of Statistics</p>	TRADE	<p>For incorporation of companies under provincial law, address Provincial Secretaries except B.C. where Attorney-General's Department is the authority. N'f'ld.:—Dept. of Economic Development P.E.I.:—Dept. of Industry and Natural Resources N.S., B.C.:—Depts. of Trade and Industry N.B.:—Dept. of Industry and Development Que.:—Dept. of Trade and Commerce Ont.:—Dept. of Planning and Development, Trade and Industry Branch Man.:—Dept. of Industry and Commerce, Bureau of Industrial Development Sask.:—Dept. of Co-operatives and Co-operative Development Trade Services Division Alta.:—Dept. of Industries and Labour</p>

Sources for Federal Data

Dept. of Resources and Development
National Parks Branch (for highways in National Parks)
Engineering and Water Resources Branch
Trans-Canada Highway Division
Engineering and Architectural Division
Board of Transport Commissioners (regulations re construction and operation of railways; rates of railways, express companies and certain inland water carriers; issuing of licences to certain inland water carriers; regulations re construction of oil and gas pipe lines)
Bureau of Transportation Economics
Air Transport Board (regulation of commercial air services)
Dept. of Transport (railways, civil aviation, marine services, steamship inspection, canals, etc.)
Canadian Maritime Commission
National Harbours Board
Trans-Canada Air Lines
Dept. of National Health and Welfare
Civil Aviation Medicine Division
National Film Board (films, filmstrips and photographs)
Dominion Bureau of Statistics (statistics of transportation, including highways, motor-vehicles)

Dept. of Resources and Development
Northern Administration and Lands Branch (Yukon and Northwest Territories)
National Parks Branch
Dept. of Citizenship and Immigration
Indian Affairs Branch
National Film Board (films and photographs)
Dominion Bureau of Statistics (for general trapping statistics)

Dept. of Labour
Economics and Research Branch
Unemployment Insurance Commission
Dominion Bureau of Statistics

Dept. of Veterans Affairs (general information, rehabilitation, veterans' welfare, treatment, land settlement, gratuities, re-establishment credit, veterans' insurance, business and professional loans, records of service, war graves and medals)
Canadian Pension Commission (The Pension Act)
War Veterans Allowance Board (The War Veterans' Allowance Act)
Dept. of Labour (unemployment insurance and war veteran allowances, vocational training)
Dept. of Finance (veterans business and professional loans)
National Film Board (films and photographs)
Dept. of Citizenship and Immigration
Indian Affairs Branch (for Indian veterans)

Subject

TRANSPORTATION

TRAPPING
See also
"Fur Farming"TRUST AND LOAN
COMPANIES
See "Banking"

UNEMPLOYMENT

VETERANS
AFFAIRS

Sources for Provincial Data

Nfld.:—Dept. of Public Works
P.E.I.:—Dept. of Public Works and Highways
N.S.:—Dept. of Highways and Public Works
N.B.:—Dept. of Public Works Highway Branch
Que.:—Dept. of Roads, Transportation Board
Ont.:—Dept. of Highways, Ontario Northland Transportation Commission
Man.:—Dept. of Public Works Highways Branch
Dept. of Mines and Natural Resources
Dept. of Public Utilities
Dept. of Industry and Commerce
Sask.:—Dept. of Highways and Transportation
Saskatchewan Transportation Company
Alta.:—Dept. of Railways and Telephones, Dept. of Highways Highway Traffic Board
B.C.:—Dept. of Railways
Public Utility Commission
Dept. of Public Works

Nfld.:—Dept. of Mines and Resources
P.E.I.:—Dept. of Agriculture
N.S., Ont., Alta.:—Depts. of Lands and Forests
N.B.:—Dept. of Lands and Mines
Que.:—Dept. of Game and Fisheries
Man.:—Dept. of Mines and Natural Resources, Game and Fisheries Branch
Sask.:—Dept. of Natural Resources
B.C.:—Attorney-General's Dept.
Provincial Game Commission

Nfld.:—Dept. of Labour
Ont.:—Dept. of Public Welfare
Bureau of Statistics and Research

P.E.I.:—Provincial Secretary
N.S.:—Dept. of Public Welfare
N.B.:—Dept. of Health and Social Services
Que.:—Dept. of Social Welfare and Youth
Ont.:—Dept. of Public Welfare, Soldiers Aid Commission
Sask.:—Dept. of Social Welfare and Rehabilitation
Rehabilitation Division
Alta.:—Veterans Welfare Advisory Commission
B.C.:—Dept. of Provincial Secretary

Sources for Federal Data	Subject	Sources for Provincial Data
Dominion Bureau of Statistics Dept. of Resources and Development Northern Administration and Lands Branch (for Yukon and Northwest Territories) Public Archives (early census records)	VITAL STATISTICS	N'f'ld., B.C.:—Depts. of Health P.E.I.:—Registrar of Births, Deaths and Marriages N.S., Sask., Alta.:—Depts. of Public Health Registrars General N.B.:—Dept. of Health and Social Service Que.:—Dept. of Health Vital Statistics Branch Ont.:—Dept. of Municipal Affairs Vital Statistics Branch Man.:—Dept. of Health and Public Welfare
Dept. of Labour Industrial Relations Branch (fair wages) Economics and Research Branch Legislation Branch Dominion Bureau of Statistics	WAGES (including Working Conditions)	All Provinces except Alta.:— Depts. of Labour Alta.:—Dept. of Industries and Labour <i>Additional:—B.C.:—Dept. of Trade and Industry, Bureau of Eco- nomics and Statistics</i>
Dept. of Resources and Development Engineering and Water Resources Branch Dept. of Fisheries (where fishery resources are affected)	WATER RESOURCES	N'f'ld.:—Dept. of Mines and Re- sources N.S.:—Nova Scotia Power Com- mission N.B.:—Dept. of Lands and Mines Que.:—Dept. of Hydraulic Resources Ont.:—Depts. of Planning and De- velopment; Lands and Forests Man.:—Dept. of Mines and Natural Resources, Water Resources Branch Alta.:—Dept. of Agriculture B.C.:—Dept. of Lands and Forests
Dept. of Transport Meteorological Division, Toronto	WEATHER	
Dept. of National Health and Welfare Welfare Branch, Research Division Dept. of Labour Unemployment Insurance Com- mission Annuities Branch National Advisory Committee on the Rehabilitation of Disabled Persons Dept. of Resources and Development Northern Administration and Lands Branch (for Eskimos) Dept. of Citizenship and Immigration Indian Affairs Branch (for Indians) National Film Board (films and photographs)	WELFARE For 'Welfare of Veterans' See 'Veterans Affairs'	N'f'ld., N.S., Ont., Alta.:—Depts. of Public Welfare P.E.I., B.C.:—Depts. of Health and Welfare N.B.:—Dept. of Health and Social Services Que.:—Dept. of Social Welfare and Youth Man.:—Dept. of Health and Public Welfare Sask.:—Dept. of Social Welfare and Rehabilitation Yukon:—Yukon Territorial Council, Dawson N.W.T.:—Northwest Territories Council, Ottawa, Ont.
Dept. of Resources and Development National Parks Branch Canadian Wildlife Service National Museum of Canada National Film Board (films, photo- graphs)	WILD LIFE	N'f'ld.:—Dept. of Mines and Re- sources N.B.:—Northeastern Wildlife Ser- vice, Fredericton Dept. of Lands and Mines Ont., Alta.:—Depts. of Lands and Forests B.C.:—Dept. of Education
Dept. of Labour Government Employees' Compens- ation Branch Merchant Seamen Compensation Board	WORKMEN'S COMPENSATION	Provincial Workmen's Compensation Boards at: N'f'ld.:—St. John's P.E.I.:—Charlottetown N.S.:—Halifax; N.B.:—Saint John Ont.:—Toronto; Man.:—Winnipeg Sask.:—Regina; Alta.:—Edmonton B.C.:—Vancouver Que.:—Workmen's Compensation Commission

PART II.—SPECIAL MATERIAL PUBLISHED IN FORMER EDITIONS OF THE CANADA YEAR BOOK

As it is not possible to include in any single edition of the Year Book all articles and descriptive text of previous editions, the following list has been compiled as an index to such miscellaneous material and special articles as are not repeated in the present edition. This list links up the 1952-53 Year Book with its predecessors in respect of matters that have not been subject to wide change. Those Sections of Chapters, such as "Population," which are automatically revived when later Census material is made available and to which adequate references are made in the text, are not listed unless they are in the nature of special contributions. The latest published article on each subject is shown, except when an earlier article includes material not repeated in the later one. When an article covers more than one subject it is listed under each appropriate heading.

The articles marked with an asterisk (*) are available in reprint form from the Dominion Statistician at the price quoted.

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Agriculture—			
The Development of Agriculture in Canada.	J. H. GRISDALE, D.Sc.A.	1924	186-191
Prairie Farm Rehabilitation Program....	WILLIAM DICKSON.	1938	223-230
Historical Background of Canadian Agriculture.....	G. S. H. BARTON, C.M.G., B.S.A., D.Sc.A.	1939	187-190
The War and Canadian Agriculture.....	—	1945	188-191
Agricultural Marketing Legislation, 1939..	—	1940	181-185
Canadian Agriculture during the War and Post-War Periods.....	G. S. H. BARTON, C.M.G., B.S.A., D.Sc.A.	1946	200-211
The 1946-47 National Agricultural Program and Policy.....	—	1947	324-328
*Irrigation in Western Canada (10 cts.)....	{ W. J. JACOBSON J. E. LANE C. B. DAVIDSON. T. W. GRINDLEY. W. G. MALAHER. C. V. PARKER }	1947	375-382
*The Canadian Wheat Board, 1939-46 (15 cts.).....	{ C. B. DAVIDSON. T. W. GRINDLEY. W. G. MALAHER. C. V. PARKER }	1947	778-813
The Major Soil Zones and Regions of Canada.....	P. C. STORRE.	1951	352-356
Agricultural Irrigation and Land Conservation.....	—	1951	367-379
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Art in Canada.....	—	1924	886-888
The Development of the Fine Arts in Canada.....	NEWTON MAC TAVISH, M.A., D. Litt.	1931	995-1009
A Bibliography of Canadian History.....	GUSTAVE LANCTOT, LL.M., D.Litt., LL.D., K.C., F.R.S.C.	1939	36-40
The Development of the Press in Canada.	A. E. MILLWARD, B.A., B. Com.	1939	737-773
*The Democratic Functioning of the Press (10 cts.).....	SENATOR, THE HON. W. A. BUCHANAN.	1945	744-748
Canada and UNESCO.....	J. E. ROBBINS, Ph.D.	1947	313-315
Royal Commission on National Development in the Arts, Letters and Sciences..	—	1951	315-316

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Banking and Finance—			
Life Insurance—A Historical Sketch.....	A. D. WATSON.	1925	860-864
Banking Legislation.....	—	1931	891-896
The Bank of Canada and its Relation to the Financial System.....	—	1937	881-885
Historical Sketch of Currency and Banking	—	1938	900-906
The Royal Canadian Mint.....	H. E. EWART.	1940	888-892
The Wartime Functions of a Central Bank.	—	1941	802-804
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Wartime Control under the Foreign Exchange Control Board.....	R. H. TARR.	{ 1941	833-835
*The Underwriting and Distribution of Investments; their Influence on the Capital Market (10 cts.).....	Investment Dealers Association of Canada.	{ 1942	830-833
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Citizenship—			
Early Naturalization Procedure and Events Leading up to the Canadian Citizenship Act.....	—	1951	153-155
Climate and Meteorology—			
The Meteorological Service of Canada....	SIR FREDERICK STUPART, F.R.S.C.	1922-23	43-48
Factors which Control Canadian Weather.	SIR FREDERICK STUPART, F.R.S.C.	1925	36-40
Temperature and Precipitation in Northern Canada.....	A. J. CONNOR, M.A.	1930	41-56
Droughts in Western Canada.....	A. J. CONNOR, M.A.	1933	47-59
*Meteorology Related to the Science of Aviation (10 cts.).....	J. PATTERSON, O.B.E., LL.D.	1943-44	24-29
The Climate of Canada (textual article)...	A. J. CONNOR, M.A.	1948-49	41-62
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Maritime Provinces.....	THOMAS FLINT, M.A., LL.B., D.C.L.	1922-23	102-105
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Canada's Present Status in the British Commonwealth of Nations.....	W. P. J. O'MEARA, K.C., B.A.	1943-44	41-47
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*Canada's Part in the Relief and Rehabilitation of the Occupied Territories (10 cts.).....	—	1945	79-85.

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*The Organization of the Government of Canada (25 cts.).....	—	1950	85-92
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The Effects of Government Wartime Expenditures on the Construction In- dustry.....	H. CARL GOLDENBERG.	1941	366-368
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A Historical Sketch of Criminal Law and Procedure.....	R. E. WATTS.	1932	897-899
*The Influence of the Royal Canadian Mounted Police in the Building of Canada (25 cts.).....	S. T. WOOD, C.M.G.	1950	317-331
Education —			
Recent Advances in the Field of Education in Canada.....	J. E. ROBBINS, Ph.D.	1941	876-883
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Faunas of Canada.....	P. A. TAVERNER.	1922-23	32-36
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*Migratory Bird Protection in Canada (10 cts.).....	—	1951	38-43
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The Fish Canning and Curing Industry...	D. B. FINN, Ph.D.	1941	225-226
The Effects of the War on Canadian Fisheries.....	D. B. FINN, Ph.D.	1943-44	277-279
*The Fisheries of Canada (10 cts.).....	—	1951	472-479
Forestry —			
A Sketch of the Canadian Lumber Trade.	A. R. M. LOWER, M.A.	1925	318-323
Physiography, Geology and Climate as Affecting the Forests.....	—	1934-35	311-313
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*Noxious Forest Insects and Their Control (10 cts.).....	J. J. DE GRUYSE.	1947	389-400
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The Development of Marshlands in Rela- tion to Fur Production and the Rehabili- tation of Fur-Bearers.....	D. J. ALLAN.	1943-44	267-269

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*Geology (10 cts.).....	F. J. ALCOCK, Ph.D.	1951	14-26
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National Harbours Board.....	R. O. CAMPNEY, K.C.	1940	679-681
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*Historic Sites and Monuments (15 cts.)....	W. D. CROMARTY	1938	78-90
The Relationship of the Public Archives to the Historical Records of Canada and a Bibliography of Canadian History....	GUSTAVE LANCTOT, LL.M., D.Litt., LL.D., K.C., F.R.S.C.	1939	34-40
*The Influence of the Royal Canadian Mounted Police in the Building of Canada (25 cts.).....	S. T. WOOD, C.M.G.	1950	317-331
Hospitals and Institutions—			
Historical Review of Hospitals and Other Institutions.....	J. C. BRADY, M.A.	1936	1006-1009
Insurance—			
The Growth and Development of Life Insurance in Canada.....	A. D. WATSON.	1933	937-944
Fire and Casualty Insurance.....	G. D. FINLAYSON.	1942	842-846
*Insurance in Canada during the Depression and War Periods (10 cts.).....	G. D. FINLAYSON, C.M.G.	1947	1064-1074
Labour—			
Legislation Respecting Combinations in Restraint of Trade.....	F. A. MCGREGOR.	1927-28	765-770
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*The Automobile Industry in Canada (10 cts.).....	H. McLEOD.	1947	521-525
*The Chemical Industries in Canada (10 cts.).....	H. McLEOD.	1948-49	532-550

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The Coal Deposits and Coal Resources of Canada.....	B. R. MACKAY, B.Sc., Ph.D.	1946	337-347
The Iron-Ore Resources of the Quebec-Labrador Region.....	W. M. GOODWIN.	1950	505-512
Titanium—The Basis of a New Industry in Quebec.....	W. M. GOODWIN.	1950	512-513
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The Royal Canadian Naval College.....	—	1946	1081-1082
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The British Commonwealth Air Training Plan—A Summary of the R.C.A.F.'s Major Role in the War of 1939-45.....	—	1946	1090-1099
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Physiography—			
Physical Geography of the Canadian Eastern Arctic.....	R. A. GIBSON.	1945	12-19
The Relation of Hydrography to Navigation and the War Record of the Hydrographic and Map Service.....	F. G. SMITH.	1946	14-18
*Physical Geography of the Canadian Western Arctic (10 cts.).....	R. A. GIBSON.	1948-49	9-18
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Power Resources—			
*The Water-Power Resources of Canada and Their Utilization (10 cts.).....	J. T. JOHNSTON.	1940	353-364
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PART III.—REGISTER OF OFFICIAL APPOINTMENTS*

The following list of official appointments continues that published in the 1951 Year Book, pp. 1181-1186, until Sept. 30, 1952.

Governor General's Staff.—1951. June 7, Hon. John Robert Cartwright, Puisne Judge of the Supreme Court of Canada: to be Deputy of His Excellency the Governor General. **1952.** Feb. 28, Joseph François Delaute: to be Deputy of His Excellency the Governor General. Superintendent Cyril Nordheimer Kenny-Kirk, of the Royal Canadian Mounted Police, Ottawa, Ont.: to be Honorary Aide-de-Camp to His Excellency the Governor General, effective Feb. 28, 1952. Mar. 6, The following persons to be Deputies of His Excellency the Governor General: Rt. Hon. Thibaudeau Rinfret, LL.D., Hon. Patrick Kerwin, Hon. Robert Taschereau, LL.D., Hon. Ivan Cleveland Rand, Hon. Roy Lindsay Kellock, Hon. James Wilfred Estey. Mar. 31, Joseph François Delaute, Assistant Secretary to the Governor General: to be Secretary to the Governor General (Administrative) effective Apr. 1, *vice* Maj.-Gen. H. F. G. Letson, resigned.

Lieutenant-Governors.—1952. July 31, Alistair Fraser: to be Lieutenant-Governor of the Province of Nova Scotia, effective Oct. 1, 1952.

Deputy Ministers.—1951. Mar. 22, Maxwell Weir Mackenzie: to be Deputy Minister of Defence Production, effective Apr. 1, 1951. W. F. Bull: to be Deputy Minister of Trade and Commerce, effective Apr. 1, 1951. Mitchell W. Sharp: to be Associate Deputy Minister of Trade and Commerce, effective Apr. 1, 1951. July 24, Charles Gavsie, C.B.E., K.C.: to be Deputy Minister of National Revenue for Taxation, effective Aug. 1, 1951. **1952.** Mar. 18, Leolyn Dana Wilgress: to be Under-Secretary of State for External Affairs, effective June 1, 1952. Mar. 21, Reginald McLaren Brophy: to be Deputy Minister of Defence Production, effective May 1, 1952, *vice* Maxwell Weir Mackenzie, resigned.

Clerk of the Queen's Privy Council for Canada and Secretary to the Cabinet.—1952. Mar. 18, John Whitney Pickersgill, effective June 1, 1952.

Royal Canadian Mounted Police Force.—1951. May 8, Leonard Hanson Nicholson, M.B.E.: to be Commissioner, effective May 1, 1951.

*Extracts from the *Canada Gazette*.

Judicial Appointments

Higher Courts.—1951. Apr. 19, Antonio Garneau, K.C.: to be a Puisne Judge of the Superior Court for the District of Montreal, in the Province of Quebec. Charles Edouard Ferland, K.C.: to be a Puisne Judge of the Superior Court for the District of Montreal, in the Province of Quebec. July 24, Hon. Mr. Justice James D. Hyndman, formerly a Justice of Appeal of the Court of Appeal for Alberta: to be a Deputy Judge of the Exchequer Court of Canada, for a term of four months commencing Sept. 1, 1951. Hon. Mr. Justice Sidney A. Smith, formerly a Justice of Appeal of the Court of Appeal for British Columbia: to be a Deputy Judge of the Exchequer Court of Canada, for a term of four months commencing Sept. 1, 1951. July 31, Ralph Maybank, K.C.: to be Judge of the Court of King's Bench for Manitoba. Aug. 15, Louis-Philippe Cliche, K.C.: to be a Puisne Judge of the Superior Court for the Districts of St. Francis and Bedford, in the Province of Quebec. Paul Ste. Marie, K.C.: to be a Puisne Judge of the Superior Court for the District of Hull, Labelle and Pontiac, in the Province of Quebec. Sept. 5, Wilfred Judson, K.C.: to be a Judge of the Supreme Court of Ontario and a Member of the High Court of Justice for Ontario and ex officio a Member of the Court of Appeal for Ontario. J. L. McLennan, K.C.: to be a Judge of the Supreme Court of Ontario and a Member of the High Court of Justice for Ontario and ex officio a Member of the Court of Appeal for Ontario. Oct. 13, John Doherty Kearney, M.C., K.C.: to be a Puisne Judge of the Exchequer Court of Canada, effective Nov. 1, 1951. Dec. 28, Guillaume St. Pierre, K.C.: to be especially appointed a Deputy Judge of the Exchequer Court of Canada. 1952. Feb. 13, Hon. G. Edouard Rinfret, Q.C.: to be a Puisne Judge of the Court of Queen's Bench in and for the Province of Quebec. Mar. 4, James M. Cairns, Q.C.: to be a Judge of the Trial Division of the Supreme Court of Alberta and ex officio a Judge of the Appellate Division of the said Court. Clovis T. Richard, Q.C.: to be a Judge of the Queen's Bench Division of the Supreme Court of New Brunswick. Mar. 31, Harry Dell Anger, Q.C.: to be a Judge of the Supreme Court of Ontario and a Member of the High Court of Justice for Ontario and ex officio a Member of the Court of Appeal for Ontario. Apr. 8, Joseph Alfred Dion, Q.C.: to be a Puisne Judge of the Superior Court of the Province of Quebec for the District of Quebec. S. Fredman, Q.C.: to be a Judge of the Court of Queen's Bench for Manitoba. Apr. 25, Hon. Mr. Justice James D. Hyndman, formerly a Justice of the Court of Appeal of Alberta: to be especially appointed a Deputy Judge of the Exchequer Court of Canada, from May 15 to June 30, 1952. June 27, Hon. Colin Campbell McLaurin, a Judge of the Trial Division of the Supreme Court of Alberta: to be Chief Justice of the Trial Division of the Supreme Court of Alberta and ex officio a Judge of the Appellate Division of the said Court. Ernest B. Wilson, Q.C.: to be a Judge of the Trial Division of the Supreme Court of Alberta and ex officio a Judge of the Appellate Division of the said Court.

County and District Courts.—1951. Mar. 8, Farquhar J. MacRae, K.C.: to be Judge of the County Court for the County of Ontario in the Province of Ontario, and also a Local Judge of the High Court of Justice for Ontario. June 11, John S. Latchford: to be a Junior Judge of the County Court for the County of Wentworth, in the Province of Ontario, and also a Local Judge of the High Court of Justice for Ontario. July 31, His Hon. Joseph Henry McFadden, a Judge of the District Court of the Judicial District of Arcola, in the Province of Saskatchewan: to be a Judge of the District Court of the Judicial District of Melville, in the said Province. John Ross MacDonald, K.C.: to be Judge of the District Court of the Judicial District of Arcola, in the Province of Saskatchewan. Dec. 28, Frederick K. Grimmett: to be a

Judge of the County Court of New Westminster in British Columbia, also a Local Judge of the Supreme Court of British Columbia during his tenure of office as a Judge of the said County Court. **1952.** Feb. 12, Laurence Hudson Phinney, Stipendiary Magistrate at Yellowknife, N.W.T.: to act as Juvenile Court Judge for Fort Liard and within a radius of thirty miles therefrom. Feb. 26, Hon. Esten Kenneth Williams, Chief Justice of Her Majesty's Court of Queen's Bench for Manitoba: to be District Judge in Admiralty of the Exchequer Court in and for the Manitoba Admiralty District. Mar. 4, Nelles V. Buchanan, Q.C.: to be a Judge of the District Court of the District of Northern Alberta, also a Local Judge of the Supreme Court of Alberta. May 30, John de Navarre Kennedy, Q.C.: to be Judge of the County Court for the County of Peterborough in the Province of Ontario, also a Local Judge of the High Court of Justice for Ontario.

Divorce Courts.—**1951.** June 11, Hon. William Arthur Ives Anglin, a Judge of the King's Bench Division of the Supreme Court of New Brunswick: to be a Judge of the Court of Divorce and Matrimonial Causes of the Province of New Brunswick.

Government Appointments to Miscellaneous Boards, Commissions, etc.

Board of Examiners.—**1951.** May 10, Joseph Edwin Lilly, Dominion Topographical Surveyor of the Geodetic Survey Division of the Surveys and Mapping Branch: to be a Member *vice* J. L. Rannie, resigned.

Board of Transport Commissioners for Canada.—**1951.** Oct. 13, Hon. John Doherty Kearney, a Puisne Judge of the Exchequer Court of Canada: to be a Member and Chief Commissioner of the Board of Transport Commissioners for Canada and also to continue to be and exercise the jurisdiction of a Judge of the Exchequer Court of Canada, *vice* Hon. Maynard B. Archibald, resigned, effective Nov. 1, 1951.

Board of Trustees of the National Gallery of Canada.—**1952.** Apr. 22, The following persons to be Members: Mrs. H. A. Dyde, Edmonton, Alta.; Charles Percy Fell, Toronto, Ont.; Dr. W. T. Ross Flemington, Sackville, N.B.; Cleveland Morgan, Montreal, Que.; Jean Raymond, Westmount, Que.

Canadian Broadcasting Corporation.—**1952.** Apr. 22, Roy J. Fry: to be a Governor for a period of three years, effective Apr. 1, 1952.

Canadian Commercial Corporation.—**1951.** Apr. 18, The following Officers of the Department of Defence Production to be President and Directors, effective Apr. 12, 1951: President, William Davidson Low, Co-ordinator of Purchasing; Directors, Thomas Norbert Beaupré, Special Assistant to the Deputy Minister, Crawford Gordon, Jr., Co-ordinator of Production, Harold Gustave Hesler, Financial Adviser, Gordon Ward Hunter, Executive Assistant to the Deputy Minister, Cyril Robert Snell, Deputy Co-ordinator of Purchasing. Nov. 20, Reginald McLaren Brophy: to be a Director, *vice* Crawford Gordon, Jr., resigned. **1952.** May 23, George Milligan Grant, Director, Electronics Division, Department of Defence Production: to be a Director, *vice* Reginald McLaren Brophy, resigned.

Canadian Farm Loan Board.—**1951.** Nov. 20, William Clifford Clark, Deputy Minister of Finance: to be a Member for a period of five years, effective Dec. 3, 1951.

Canadian Overseas Telecommunication Corporation.—**1951.** July 31, Douglas Forrest Bowie: to be a Director and President and General Manager, *vice* D. L. Howard, deceased.

Canadian Pension Commission.—1950. Dec. 28, Norman Loris Pickersgill, V.R.D., and John Murray Forman, D.F.C., to continue as *ad hoc* Members for a further period of one year from Feb. 1, 1951. 1951. Apr. 18, William Howard August, Departmental Solicitor in the Legal Division of the Department of Veterans Affairs, Winnipeg, Man.: to be an *ad hoc* Member for a period of one year from May 1, 1951. June 7, Jean-Paul Laplante, B.A., M.D., C.M., Medical Superintendent, Department of Veterans Affairs Hospital, Ste. Anne de Bellevue, Que.: to be a Member for a period of seven years, effective June 1, 1951. July 11, William Eddison Dexter: to be a Member for a period of three months effective June 11, 1951. Dec. 28, Norman Loris Pickersgill, V.R.D.: to be again an *ad hoc* Member for a further period of one year, effective Feb. 1, 1952. John Murray Forman, D.F.C.: to be again an *ad hoc* Member for a further period of one year, effective Feb. 1, 1952. 1952. Mar. 25, William Howard August: to be a Member for a period of ten years from May 1, 1952.

Central Mortgage and Housing Corporation.—1951. Apr. 4, J. J. Perrault: to continue as a Director until Apr. 1, 1954. J. Y. McCarter: to be a Director until Apr. 1, 1954. Oct. 5, The following members of the Public Service of Canada to be Directors, effective June 20, 1951: Maj.-Gen. Hugh A. Young, Deputy Minister of Resources and Development, K. W. Taylor, Assistant Deputy Minister of Finance, and J. E. Coyne, Deputy Governor of the Bank of Canada. 1952. June 11, W. J. Waines: to be a Director, from the date hereof for a term expiring Mar. 31, 1955.

Criminal Code Revision Commission.—1951. May 10, Hon. Mr. Justice Fernand Choquette, His Hon. Judge Robert Forsyth, Harry J. Wilson, K.C., Deputy Attorney General of Alberta, and A. A. Moffat, K.C., former Deputy Attorney General of Manitoba, together with Hon. Chief Justice W. M. Martin of Saskatchewan, who shall be Chairman: to be Commissioners to complete the revision of the Criminal Code. June 26, Joseph Sedgwick, K.C.: to be a Member.

Defence Research Board.—1951. Apr. 6, Dr. Andrew Robertson Gordon and Dr. Merritt Shrum: to be Members, effective for a period of three years from Apr. 1, 1951, *vice* Dr. Paul Edouard Gagnon and Dr. Otto Maass.

Dominion Coal Board.—1952. Jan. 29, Daniel Owen Hartigan, President and General Manager of the Indian Cove Coal Company Limited, Sydney, N.S.: to be a Member, effective Jan. 25, 1952.

Dominion Council of Health.—1951. Oct. 25, Miss N. D. Fidler, R.N., Director of the Metropolitan School of Nursing, Windsor, Ont.: to be a Member for a period of three years, effective June 1, 1951.

Federal District Commission.—1951. Aug. 15, Duncan Kenneth MacTavish, K.C., a Member of the Federal District Commission: to be Chairman. Nov. 26, The following persons to be Members: Mrs. Cecile Fontaine, M.B.E., Col. J. D. Fraser, Lawrence Freiman, Eric Cook, K.C.

Historic Sites and Monuments Board of Canada.—1951. May 3, Campbell Innes, M.A., Vice-President and Curator, North West Mounted Police Memorial and Indian Museum of Western Canada, Battleford, Sask.: to be a Member, *vice* J. A. Gregory, resigned.

Honorary Advisory Council for Scientific and Industrial Research.—1952. Feb. 12, Dr. C. J. Mackenzie, President of the National Research Council: to be a Member, effective Apr. 1, 1952.

Income Tax Appeal Board.—1951. Apr. 3, Fabio Monet, K.C., a Member: to be Chairman and to hold office as such until Dec. 31, 1958, effective Apr. 1, 1951. Reginald Sydney Walter Fordham, K.C.: to be a Member for a period of ten years, effective Apr. 1, 1951.

International Pacific Salmon Fisheries Commission.—1952. June 30, H. R. MacMillan: to be a Member, *vice* Olof Hanson, deceased, for a period of two years, effective June 30, 1952.

Maritime Marshland Rehabilitation Act.—1952. Mar. 4, D. C. Milligan: to be the Representative of the Province of Nova Scotia on the Advisory Committee established under the Maritime Marshland Rehabilitation Act, *vice* Angus Banting, resigned.

National Battlefields Commission.—1951. Sept. 5, Lt.-Col. Raymond Garneau, E.D.: to be a Member, *vice* Dr. André Simard, deceased.

National Film Board.—1952. July 31, Leolyn Dana Wilgress, Under-Secretary of State for External Affairs, Ottawa: to be a Member for the remainder of the three-year term of A. D. P. Heeney; which commenced Oct. 14, 1950.

National Gallery of Canada.—1952. Mar. 11, Harry S. Southam, a Member of the Board of Trustees: to be Chairman of the said Board of Trustees. July 15, John Alexander MacAulay, Q.C.: to be a Member.

National Harbours Board.—1952. May 20, Maurice Georges Archer, Consulting Engineer, Quebec, Que.: to be a Member and Vice-Chairman for a term of 10 years, effective July 1, 1952.

National Research Council.—1951. May 24, Albert Bertrand, B.A., M.D., Chief of the Bacteriology Laboratory, Notre Dame Hospital, Montreal, and Professor of Bacteriology, Faculty of Medicine, University of Montreal, Montreal, Que.; DeGaspé Beaubien, C.B.E., D.Sc., Consulting Engineer, Montreal, Que.; A. N. Campbell, M.Sc., Ph.D., D.Sc., Professor of Chemistry, University of Manitoba, Winnipeg, Man.; Gordon G. Cushing, Secretary-Treasurer, Trades and Labour Congress of Canada, Ottawa, Ont.; Cyrias Ouellet, D.Sc., Professor of Chemistry, Laval University, Quebec, Que.: to be Members for a period of three years expiring Mar. 31, 1954. June 21, George Edouard Hall, M.S.A., M.D., Ph.D., F.R.S.C., President and Vice-Chancellor of the University of Western Ontario, Hamilton, Ont.: to be a Member for a term of three years expiring Mar. 31, 1954. 1952. Feb. 12, Dr. E. W. R. Steacie, O.B.E., F.R.S.C., F.R.S., Vice-President: to be President, effective Apr. 1, 1952.

North Fraser Harbour Commissioners.—1952. June 11, The following persons to be Commissioners: Samuel Norman Noble, J. Arthur Lindsay, J. Stewart Alsbury.

Northwest Territories Council.—1951. May 16, Leonard Hanson Nicholson, M.B.E., Commissioner of the Royal Canadian Mounted Police: to be a Member, *vice* Col. Stuart Taylor Wood, resigned. June 26, Louis De La Chesnaye Audette, Commissioner, Canadian Maritime Commission; Frank John Graham Cunningham, Administrative Officer, Department of Resources and Development; Harold Brandon Godwin, Air Commodore, Department of National Defence; Donald Morrison

MacKay, O.B.E., Director of Indian Affairs, Department of Citizenship and Immigration; Leonard Hanson Nicholson, Commissioner of the Royal Canadian Mounted Police: to be Members and the said Frank John Graham Cunningham to be Deputy Commissioner of the Territories. Dec. 28, Air Commodore William Isaac Clements: to be a Member, *vice* Air Commodore Harold Brandon Godwin, resigned.

Northwest Territories Power Commission.—1952. May 9, Hugh Andrew Young, C.B., C.B.E., D.S.O., Deputy Minister of Resources and Development: to be a Member, effective May 12, 1952, *vice* J. M. Wardle, resigned. May 23, Norman Marr: to be a Member.

Organization for European Economic Co-operation.—1952. Apr. 25, Arnold Danford Patrick Heeney: to be Representative of Canada to the Organization for European Economic Co-operation, Paris, France.

Unemployment Insurance Advisory Committee.—1952. Feb. 29, J. G. McLean: to be a Member for the balance of the term of A. J. Kelly, resigned, ending June 18, 1952.

War Veteran's Allowance Board.—1951. Mar. 21, Maj.-Gen. E. L. M. Burns, Deputy Minister of Veterans Affairs: to be an additional Member. G. L. Lalonde, Assistant Deputy Minister, Department of Veterans Affairs: to be the alternate for Maj.-Gen. Burns as such additional Member. Apr. 26, Thomas Duncan Anderson, General Secretary of the Canadian Legion of the British Empire Service League: to be an additional Member, *vice* J. C. G. Herwig, deceased.

Yukon.—1951. June 21, Andrew Harold Gibson, Commissioner of Yukon Territory: to be Registrar of the Yukon Land Registration District, effective June 1, 1951. Frank Gramani Smith, Departmental Solicitor, Department of Resources and Development: to be Deputy Registrar of the Yukon Land Registration District, effective June 1, 1951, *vice* Miss Rhoda R. MacDonald, resigned. Oct. 3, Frederick Fraser: to be Commissioner of Yukon Territory, *vice* Andrew Harold Gibson, effective Oct. 15, 1951.

Miscellaneous.—1951. July 31, Rt. Hon. James Lorimer Ilsley, P.C., K.C.: to be a Commissioner to investigate and report upon War Claims of Canadians in respect of death, personal injury, maltreatment and loss of or damage to property arising out of World War II. Aug. 24, Dr. T. H. Hogg, Toronto, Ont., G. A. Gaherty, Calgary, Alta., and Dr. John A. Widtsoe, Salt Lake City, Utah, U.S.A.: to be Commissioners to inquire into the feasibility of proposed South Saskatchewan River Project. Nov. 12, Kenneth J. Christie, Chief Mining Inspector of the Northwest Territories: to be a Commissioner under Part I of the Inquiries Act, to inquire into and report upon the facts concerning the staking of certain areas of property of the Crown in the Northwest Territories and Yukon Territory. 1952. Jan. 29, Hugh F. Gibson: to be a Commissioner to investigate charges of political partisanship against Robert S. Wise, Postmaster at Cloyne, Ont. June 3, John Whitney Pickersgill, Clerk of the Queen's Privy Council for Canada and Secretary to the Cabinet: to be a Commissioner, *per dedimus potestatem*, to tender and administer the Oath of Allegiance and the Oath of Office, and such other Oaths as may from time to time be prescribed by law.

PART IV.—FEDERAL LEGISLATION, 1951 AND 1952

This classified list of federal legislation has been compiled from the Statutes. Naturally, in summarizing material of this kind it is not always easy to convey the full implication of the legislation. The reader who is interested in any specific Act is, therefore, referred to the Statutes of Canada at the given volume and chapter.

Legislation of the Fourth Session of the Twenty-first Parliament, Jan. 30, 1951, to Oct. 9, 1951

Subject, Chapter and Date of Assent	Synopsis
15 George VI.	
Agriculture—	
3 Mar. 21	<i>An Act to Amend the Canadian Wheat Board Act, 1935.</i> This amendment redefines the "pool period" and adds a proviso regarding the adjustment of accounts on the transfer of wheat from one pool period to another.
6 Mar. 21	<i>An Act to Amend the Farm Improvement Loans Act, 1944,</i> revises Sects. 4 and 5 of the Act relating to the limitations of amounts of liability to banks in respect of improvement loans.
39 June 30	<i>The Canada Dairy Products Act</i> establishes national standards for dairy products and regulates interprovincial and international trade in dairy products.
58 June 30	<i>An Act to Amend the Prairie Farm Rehabilitation Act.</i> By this amendment, no project may be undertaken involving an expenditure of over \$10,000 in a year without the consent of the Governor in Council. Other revisions are concerned with the appointments of certain employees and superannuation.
Citizenship—	
12 May 31	<i>An Act to Amend the Canadian Citizenship Act.</i> Revisions are made in the regulations governing loss of Canadian citizenship.
29 June 20	<i>The Indian Act.</i> This Act constitutes a complete revision of the legislation under which Indian affairs are administered. Previous legislation (R.S.C. 1927, c. 93,) with the exception of that portion now cited as the Indian (Soldier Settlement) Act, is repealed.
Constitution and Government—	
21 May 31	<i>An Act to Amend the Northwest Territories Act.</i> By this amendment the Council of the Northwest Territories shall consist of eight members, three of whom will be elected to represent electoral districts and five appointed, replacing the former six-member appointed Council. Regulations concerning election of members—eligibility, qualifications, tenure of office, etc.—are designated.
23 May 31	<i>An Act to Amend the Yukon Act.</i> The Council of Yukon Territory is increased from three elective members to five elective members. The amendment also concerns permission for the manufacture or importation of intoxicants.
48 June 30	<i>An Act to Amend the Dominion Elections Act, 1938.</i> Revisions in the mode of voting are made by this amendment and the provisions of the Act made effective in the conduct of elections of members to the Council of the Northwest Territories.
Construction—	
24 June 20	<i>An Act to Amend the Central Mortgage and Housing Corporation Act, 1945.</i> This amendment places the administration of the Corporation with the Minister of Resources and Development and revises the composition of the Board of Directors and the Executive Committee.
32 June 20	<i>An Act to Amend the National Housing Act, 1944.</i> This amendment gives the Governor in Council authority to prescribe interest rates on loans.
Defence Production—	
4 Mar. 21	<i>The Defence Production Act</i> authorizes the establishment of the Department of Defence Production and defines the duties, powers and functions of the Minister of the Department of Defence Production.

**Legislation of the Fourth Session of the Twenty-first Parliament,
Jan. 30, 1951, to Oct. 9, 1951—continued**

Subject, Chapter and Date of Assent	Synopsis
Finance—	
1 Mar. 21	<i>The Appropriation Act, No. 1, 1951</i> , grants \$413,758,902 and certain other moneys, out of the Consolidated Revenue Fund, for defraying expenses of the public services for 1951-52.
2 Mar. 21	<i>The Appropriation Act, No. 2, 1951</i> , grants \$201,556,559 out of the Consolidated Revenue Fund for defraying certain charges and expenses of the public services for 1950-51 not provided for otherwise.
7 Mar. 21	<i>An Act to Amend the Foreign Exchange Control Act</i> provides for the continuance of the Foreign Exchange Control Act until 60 days after the first session of Parliament commencing in 1953.
8 May 31	<i>The Appropriation Act, No. 3, 1951</i> , grants \$206,696,712 out of the Consolidated Revenue Fund towards defraying expenses of the public service for 1951-52.
35 June 20	<i>An Act to Amend the Quebec Savings Banks Act</i> . Revisions concern provisos re investments in corporate bonds or debentures, loans without security and loans on first mortgage.
40 June 30	<i>The Canada-France Income Tax Convention Act, 1951</i> . By this Act, an agreement for the avoidance of double taxation and the prevention of fiscal evasion with respect to income taxes entered into between Canada and France (signed Mar. 16, 1951) is approved and declared to have the force of law in Canada.
41 June 30	<i>The Canada-France Succession Duty Convention Act, 1951</i> . By this Act, an agreement for the avoidance of double taxation and the prevention of fiscal evasion with respect to succession duties entered into between Canada and France (signed Mar. 16, 1951) is approved and declared to have the force of law in Canada.
42 June 30	<i>The Canada-Sweden Income Tax Agreement Act, 1951</i> . By this Act, an agreement for the avoidance of double taxation and for reciprocal assistance in the matter of income taxes entered into between Canada and Sweden (signed Apr. 6, 1951) is approved and declared to have the force of law in Canada.
45 June 30	<i>Canadian National Railways Financing and Guarantee Act, 1951</i> , authorizes the provision of moneys to meet certain capital expenditure made and capital indebtedness incurred by the Canadian National Railways System during 1951 and authorizes the guarantee by His Majesty of certain securities to be issued by the C.N.R.
46 June 30	<i>Canadian National Railways Refunding Act, 1951</i> . The Act provides for the refunding of matured, maturing and callable financial obligations of the Canadian National Railway Company and of the companies comprised in the Canadian National Railway System, and for the issue of substituted securities.
51 June 30	<i>An Act to Amend the Income Tax Act</i> . The amendment provides for the addition of a defence surtax to the tax of each individual and corporation and makes a number of revisions in respect of deductions allowable, computation of tax in the case of retired employees, property transfers, etc.
54 June 30	<i>The Municipal Grants Act</i> authorizes the Minister of Finance to pay grants to municipalities in respect of federal property situated therein.
65 June 30	<i>The Appropriation Act, No. 4, 1951</i> , grants the sum of \$1,852,975,067 as the main estimates for the public service for the fiscal year ended Mar. 31, 1952.
Insurance—	
11 May 31	<i>An Act to Amend the Canadian and British Insurance Companies Act, 1938</i> . Certain amendments are made in connection with voting by proxy at shareholders meetings, notification of such meetings and distribution of profits to shareholders as dividends or bonuses.
59 June 30	<i>An Act to Amend the Returned Soldiers Insurance Act</i> . The changes under this amendment are concerned mainly with beneficiaries of the insured and payment of premiums in case of disability.
64 June 30	<i>An Act to Amend the Veterans Insurance Act</i> includes revisions respecting eligibility, disability of insured, and beneficiaries.
Justice—	
25 June 20	<i>An Act to Amend the Criminal Code</i> revises legislation concerning race meetings and the operation of the pari-mutuel system.

**Legislation of the Fourth Session of the Twenty-first Parliament,
Jan. 30, 1951, to Oct. 9, 1951—continued**

Subject, Chapter and Date of Assent	Synopsis
Justice—concl. 30 June 20	<i>An Act to Amend the Juvenile Delinquents Act, 1929</i> , alters the definition of "child" in the Act.
34 June 20	<i>An Act to Amend the Prisons and Reformatories Act</i> . Legislation concerning certified institutions in the Province of Alberta is added as Part X to the Act.
47 June 30	<i>An Act to Amend the Criminal Code</i> . Revisions concern mainly the assisting of deserters or absentees from the Canadian Forces or the R.C.M.P., firearms, offences of a seditious nature, driving while ability to drive is impaired, public stores, mails, etc.
52 June 30	<i>An Act to Amend the Judges Act, 1946</i> , revises salaries of the judges of the Exchequer Court of Canada and of the judges of the provincial courts. It also makes amendments re annuities to judges and widows of judges.
61 June 30	<i>An Act to Amend the Supreme Court Act</i> permits a judge of the Supreme Court to allow an appeal <i>in forma pauperis</i> though the time prescribed for serving notice has expired.
Labour— 16 May 31	<i>An Act to Amend the Government Employees Compensation Act, 1947</i> , places the administration of the Act with the Minister of Labour and makes minor revisions re general administration expenses and the payment of compensation for accidents occurring in the Yukon and Northwest Territories.
Mines and Technical Surveys— 49 June 30	<i>An Act to Amend the Emergency Gold Mining Assistance Act</i> concerns the calculation of assistance to be paid in respect of gold produced and sold in 1950 and application of the Act in the year 1951.
National Welfare— 38 June 30	<i>The Blind Persons Act</i> . This legislation provides for financial aid to the provinces toward the provision of allowances, not exceeding \$40 a month, to blind persons aged 21 years or over, subject to a residence qualification of at least 10 years. This Act continues, on a somewhat more generous basis, the cash assistance previously paid under the Old Age Pension Act (R.S.C. 1927, c. 156) repealed.
55 June 30	<i>The Old Age Assistance Act</i> provides for financial aid to the provinces toward the provision of assistance, not exceeding \$40 a month, to persons aged 65 to 69, subject to a residence qualification of at least 20 years. The Federal Government's contribution per recipient cannot exceed 50 p.c. of \$40 or of the assistance paid, whichever is less. Amount of assistance, income allowable and other conditions of eligibility are fixed by the province.
56 June 30	<i>An Act to Amend the Pensions Act and change the Title thereof</i> . A number of amendments relating to the payment of pensions are made together with revisions concerning salaries and tenure of office of commissioners.
62 June 30	<i>The Veterans Benefit Act, 1951</i> , authorizes the extension of veterans legislation, as set out in the Schedule to the Act, to all persons enrolled or serving in the special force subsequent to July 5, 1950. The Act comes into force on the expiration of Sect. 7 of the Canadian Forces Act 1950 and expires on the last day of the first session of Parliament in 1952.
Public Works— 18 May 31	<i>The Kingsmere Park Act</i> provides for the administration by the Federal District Commission of Kingsmere Park and the management and control of buildings therein by the Minister of Public Works, in accordance with the desires and purposes expressed in the Will of the Rt. Hon. W. L. Mackenzie King.
19 May 31	<i>The Laurier House Act</i> places the administration of Laurier House with the Public Archivist and its maintenance with the Department of Public Works and the Federal District Commission. A Mackenzie King Trust Account is to be credited with the sum of \$225,000, bequeathed by the Rt. Hon. W. L. Mackenzie King for the care of the property.
Trade and Commerce— 13 May 31	<i>An Act to Amend the Canadian Commercial Corporation Act</i> transfers the administration of the Act to the Minister of Defence Production and makes several minor amendments re finances of the Corporation, constitution of a quorum and application of the Civil Service Superannuation Act to employees.

**Legislation of the Fourth Session of the Twenty-first Parliament,
Jan. 30, 1951, to Oct. 9, 1951—continued**

Subject, Chapter and Date of Assent	Synopsis
Trade and Commerce—concl.	
14 May 31	<i>An Act to Amend the Consumer Credit (Temporary Provisions) Act</i> revises the definition of "conditional sale contract" and makes certain amendments <i>re</i> regulations and penalties.
15 May 31	<i>An Act to Amend the Export and Import Permits Act.</i> The amendment is concerned with the lists of exports and imports under control and the establishment of lists of countries affected by these regulations.
26 June 20	<i>An Act to Amend the Customs Act</i> makes a number of changes with respect to detention of controlled exports or imports, dutiability of certain goods ordinarily exempt from duty, return of over-paid duties, penalty for conducting business as a customs broker without a licence, etc.
27 June 20	<i>An Act to Amend the Customs Tariff Act.</i> A number of items in Schedules A and B to the Customs Tariff are revised.
28 June 20	<i>An Act to Amend the Excise Tax Act.</i> Legislation <i>re</i> affixing excise stamps on matches is repealed and rates are advanced on a number of items such as automobiles, toilet articles, certain household appliances, radios, cameras, cigars, cigarettes, fountain pens, inner tubes, clocks and watches, jewellery and tableware.
Transportation and Communications—	
9 May 31	<i>An Act respecting the appointment of Auditors for National Railways</i> authorizes, for 1951, the appointment of auditors to make a continuous audit of the accounts of the national railways.
10 May 31	<i>An Act respecting the Construction and Maintenance of a Bridge over the St. Lawrence River at or near the town of Valleyfield, in the Province of Quebec.</i> Construction of the said bridge is authorized, the site and plans to be approved and the regulations made by the Governor in Council.
17 May 31	<i>The Hamilton Harbour Commissioners Act, 1951.</i> The Act gives the Hamilton Harbour Corporation powers to conduct amusements, recreation grounds, etc., on their lands, receive compensation for their use, and to spend and borrow money and make by-laws concerning them.
22 May 31	<i>An Act to Amend the Radio Act, 1933.</i> The term "telecommunications" is defined and certain legislation <i>re</i> licences and exemptions is amended.
43 June 30	<i>An Act respecting Canadian National Railways and to authorize the acquisition of the railway of the Quebec Railway, Light and Power Company.</i> The Act gives authority to the Canadian National Railway Company to purchase the said Railway.
44 June 30	<i>An Act respecting the construction of a line of railway by the Canadian National Railway Company from Sherridon to Lynn Lake, in the Province of Manitoba.</i> This legislation provides for the construction and completion, before Nov. 1, 1953, of the said railway. Securities issued by the Company for the financing of the work will be guaranteed by the Government of Canada.
Resources and Development—	
37 June 30	<i>The Alberta Natural Resources Transfer (Amendment) Act, 1951,</i> confirms an Agreement between the Government of Canada and the Government of Alberta to change the provisions of the Alberta Natural Resources Agreement with respect to the investment of money obtained from the sale of school lands.
53 June 30	<i>The Manitoba Natural Resources Transfer (Amendment) Act, 1951,</i> confirms an Agreement between the Government of Canada and the Government of Manitoba to change the provisions of the Manitoba Natural Resources Agreement with respect to the investment of money obtained from the sale of school lands.
60 June 30	<i>The Saskatchewan Natural Resources Transfer (Amendment) Act, 1951,</i> confirms an Agreement between the Government of Canada and the Government of Saskatchewan to change the provisions of the Saskatchewan Natural Resources Agreement with respect to the investment of money obtained from the sale of school lands.

**Legislation of the Fourth Session of the Twenty-first Parliament,
Jan. 30, 1951, to Oct. 9, 1951—concluded**

Subject, Chapter and Date of Assent	Synopsis
Miscellaneous—	
5 Mar. 21	<i>The Emergency Powers Act</i> confers upon the Governor in Council certain emergency powers which, by reason of the existing international emergency, may be deemed necessary or advisable for the security, defence, peace, order and welfare of Canada.
20 May 31	<i>An Act to Amend the Migratory Birds Convention Act.</i> The Sections dealing with the appointment of game and fishery officers and seizure of equipment for violation of regulations are amended.
31 June 20	<i>The Length and Mass Units Act</i> establishes the standard units of length and of mass for Canada and provides that these standards shall be maintained by the National Research Council.
33 June 20	<i>An Act to Amend the Petition of Right Act.</i> The Sections of the Act concerning the filing of petitions are amended and those respecting the certification of the Minister and revocation of fiat obtained by fraud are repealed.
36 June 20	<i>The Weights and Measures Act.</i> This Act constitutes a complete revision of former weights and measures legislation (R.S.C. 1927, c. 222) and sets forth uniform weights and measures to be used throughout Canada together with regulations concerning administration, marking of weights and measures inspection, and penalties for offences against the Act.
50 June 30	<i>An Act to Amend the Federal District Commission Act, 1927,</i> increases by one the number of members of the Commission and gives the Commission power to construct a railway and related facilities, and to pay grants to the municipality in lieu of taxes in respect of property acquired for Gatineau Park.
57 June 30	<i>The Post Office Act</i> constitutes a complete revision of former legislation covering the establishment of the Post Office Department of the Government of Canada, the powers, duties and functions of the Postmaster General, and regulations concerning the mails. The Post Office Act (R.S.C., c. 161), the Savings Bank Act (R.S.C., c. 15), and Part IX of the Excise Tax Act (1947, c. 60) are repealed.
63 June 30	<i>An Act to Amend the Veterans' Business and Professional Loans Act</i> revises the definition of "veteran" as used in the Act, and the time limit under the guarantee.

**Legislation of the Fifth Session of the Twenty-first Parliament,
Oct. 10, 1951, to Dec. 29, 1951**

Subject, Chapter and Date of Assent	Synopsis
15-16 George VI.	
Agriculture—	
1 Dec. 21	<i>The Agricultural Products Board Act</i> authorizes the establishment of a Board to buy, sell, export and import agricultural products when directed by the Governor in Council.
31 Dec. 21	<i>An Act to Amend the Prairie Farm Assistance Act, 1939,</i> adds certain lands in Alberta and British Columbia to the list of exceptions in connection with the "no award" proviso.
Constitution and Government—	
3 Dec. 21	<i>An Act to Amend the Dominion Elections Act, 1938, and to change its title to the Canada Elections Act.</i> In addition to changing the title, numerous changes are made in many Sections of the Act.
10 Dec. 21	<i>An Act to Amend the Civil Service Act.</i> This amendment concerns the tenure of office of Civil Service Commissioners and the regulations for the fixing of their salaries.
23 Dec. 21	<i>An Act to Amend an Act respecting the Revised Statutes of Canada.</i> Under the provisions of this amendment the Statute Revision Commission shall prepare a supplement to the Revised Statutes showing the general public statutes passed after the completion of the consolidation but before the coming into force of the printed Rolls thereof.

**Legislation of the Fifth Session of the Twenty-first Parliament,
Oct. 10, 1951, to Dec. 29, 1951—continued**

Subject, Chapter and Date of Assent	Synopsis
Constitution and Government— concluded 32 Dec. 21	<i>The Privileges and Immunities (North Atlantic Treaty Organization) Act</i> approves and confirms the Agreement on the status of the North Atlantic Treaty Organization, National Representatives and International Staff, as set out in the Schedule, and gives to the Governor in Council the power to make necessary orders for carrying out the obligations, duties and rights of Canada thereunder.
Construction— 13 Dec. 21	<i>The International Rapids Power Development Act</i> approves the Agreement, dated Dec. 3, 1951, between the Government of Canada and the Province of Ontario respecting construction of works for the generation of electric power in the international rapids section of the St. Lawrence River.
Finance— 2 Dec. 21	<i>An Act to Amend the Bills of Exchange Act</i> makes provision for Saturday being a non-working day in the computation of time in all matters relating to the presentation and payment of bills, notes or cheques.
5 Dec. 21	<i>An Act to Amend the Canada-United States of America Tax Convention Act, 1943, and the Canada-United States of America Tax Convention Act, 1944.</i> This amendment adds a Protocol to the Schedule to the Act.
12 Dec. 21	<i>The Financial Administration Act</i> consolidates and revises the legislation respecting the financial administration of the Government of Canada, the audit of the public accounts and the financial control of Crown Companies. Previous enactments covering these matters are repealed.
20 Dec. 21	<i>The Prairie Grain Producers' Interim Financing Act, 1951,</i> grants short-term credit to grain producers in the Prairie Provinces to meet temporary financial difficulties due to inability to complete harvesting operations or to make delivery of grain.
27 Dec. 21	<i>The United Kingdom Financial Agreement Act, 1951,</i> approves the Financial Agreement, set out in the Schedule to the Act, between Canada and the United Kingdom, signed June 29, 1951.
Justice— 11 Dec. 21	<i>An Act to Amend the Exchequer Court Act.</i> The maximum salary of the Registrar of the Exchequer Court is increased from \$6,500 to \$7,500 per annum.
14 Dec. 21	<i>An Act to Amend the Judges Act, 1946,</i> makes provision for the payment of salaries to 15 judges and junior judges, in place of 14, of the British Columbia County Court.
25 Dec. 21	<i>An Act to Amend the Supreme Court Act</i> raises the maximum annual salary to be paid the Registrar of the Supreme Court from \$8,000 to \$8,500.
National Defence— 7 Dec. 21	<i>The Canadian Forces Act, 1951.</i> This Act amends twenty-five Acts of Parliament in their application to the Canadian Forces, mainly with respect to definitions used therein.
28 Dec. 21	<i>The Visiting Forces (North Atlantic Treaty) Act.</i> The Act implements the Agreement between the parties to the North Atlantic Treaty regarding the status of their Forces while visiting Canada and covers disciplinary jurisdiction, claims for personal injuries and property damage, security and taxation.
National Welfare— 18 Dec. 21	<i>The Old Age Security Act.</i> Under this Act, commencing January 1952, a universal pension of \$40 a month is payable by the Federal Government to all persons 70 years of age or over, subject only to a residence qualification of 20 years. The Old Age Pensions Act (R.S.C. 1927, c. 156) is repealed.
19 Dec. 21	<i>An Act to Amend the Pension Act.</i> New Schedules covering scale of pensions for disabilities and scale of pensions for deaths are provided by this amendment.
Transportation and Communications— 6 Dec. 21	<i>An Act to Amend the Canadian Broadcasting Act, 1938.</i> The number of Governors of the Corporation is increased to eleven and their tenure of office revised; the limit of expenditure, without the approval of the Governor in Council, is increased; grants from the Consolidated Revenue Fund amounting to \$4,750,000 for the year ended Apr. 1, 1951, and \$6,250,000 for each of the four following years are authorized.

**Legislation of the Fifth Session of the Twenty-first Parliament,
Oct. 10, 1951, to Dec. 29, 1951—concluded**

Subject, Chapter and Date of Assent	Synopsis
Transportation and Communications—concl.	
8 Dec. 21	<i>An Act to Amend the Canadian National-Canadian Pacific Act, 1933</i> , sets down specific items to be given in the annual report of the Board of Directors submitted to Parliament.
9 Dec. 21	<i>Canadian National Railways Financing and Guarantee Act, No. 2, 1951</i> , authorizes the provision of moneys to meet certain commitments for new equipment incurred during 1951, and the guarantee of securities to be issued by the Company.
15 Dec. 21	<i>An Act to Amend the Maritime Freight Rates Act</i> adds west-bound rail-and-lake movements to "preferred movements" as defined in the Act.
22 Dec. 21	<i>An Act to Amend the Railway Act</i> makes numerous changes concerning the constitution and salaries of the Board of Transport Commissioners, appeals under the Act, freight, passenger and joint tariffs, statistics and returns required, and authorizes payments to certain railways for cost of maintenance.
24 Dec. 21	<i>The St. Lawrence Seaway Authority Act</i> . This Act establishes a corporation for the purpose of acquiring lands and constructing, maintaining and operating the works necessary to provide a deep waterway between Lake Erie and the Port of Montreal. This project may be undertaken either wholly in Canada or in conjunction with a United States authority.
26 Dec. 21	<i>The Toronto Harbour Commissioners Act, 1951</i> . Authority is given for control and regulation of the construction and use of pipes or pipe lines for the transportation of oil or gas and for the imposition of charges therefor.
Miscellaneous—	
4 Dec. 21	<i>The Canada Lands Surveys Act</i> is a revision of the legislation formerly enacted under the Dominion Lands Surveys Act (R.S.C., c. 117) and covers: administration; examination, powers and duties of Dominion Lands Surveyors; surveys of public lands in the Northwest Territories, Yukon Territory, National Parks and of surrendered lands and reserves; and special surveys of territorial lands.
16 Dec. 21	<i>The National Gallery Act</i> is a revision of the National Gallery of Canada Act (1913, c. 33), and covers legislation concerning the Board of Trustees, objects and powers, operating account, staff, etc.
17 Dec. 21	<i>An Act to Amend the North Fraser Harbour Commissioners Act</i> increases the membership from three to five and amends provisions regarding their remuneration.
21 Dec. 21	<i>An Act to Amend the Public Printing and Stationery Act</i> raises the minimum value of purchases that must be made by tender and the amount of advances from the Public Treasury that may be outstanding at any one time.
29 Dec. 21	<i>The Whaling Convention Act</i> . This Act implements the International Convention for the regulation of whaling, the purpose of which is to provide for the proper conservation of whale stocks and thus make possible the orderly development of the whaling industry.
30 Dec. 21	<i>An Act to Amend the Combine Investigation Act</i> . The amendment concerns resale price maintenance.
33 Dec. 21	<i>An Act to Amend the Public Works Act</i> raises the maximum cost of work that may be performed by a department of government without inviting public tender.

**Legislation of the Sixth Session of the Twenty-first Parliament,
Feb. 28, 1952, to Nov. 20, 1952**

Subject, Chapter and Date of Assent	Synopsis
I Eliz. II.	
Agriculture—	
1 Mar. 6	<i>An Act for the Control and Extirpation of Foot and Mouth Disease</i> authorizes the Minister of Agriculture to order the slaughter of animals where necessary to control the foot and mouth disease and provides for compensation for such animals and property destroyed.
16 June 18	<i>An Act to Amend the Canada Dairy Products Act</i> repeals the section of the Act authorizing the Governor in Council to prohibit the movement into or out of Canada or from province to province of dairy product substitutes.
19 June 18	<i>An Act to Amend the Canadian Farm Loan Act.</i> Among the several changes, is the increase in the amount that can be loaned on first mortgage from \$5,000 to \$10,000 and in the amount on first and second mortgages together from \$6,000 to \$12,000.
35 July 4	<i>An Act to Amend the Canada Grain Act.</i> According to this amendment the salaries of the Commissioners are increased and provision made for the reappointment of members of the Board of Grain Commissioners; the position of assistant commissioner for the eastern division is dropped, the duties to be undertaken by the Board and Staff at headquarters at Winnipeg.
Constitution and Government—	
8 May 29	<i>An Act to Amend the Government Employees Compensation Act, 1947,</i> extends the coverage of the Act.
9 May 29	<i>An Act to Amend the Interpretation Act</i> makes it clear that the statutory obligation to submit material to Parliament is discharged when it is once laid before Parliament.
15 June 18	<i>The British North America Act, 1952</i> amends the B.N.A. Acts, 1867 to 1951, with respect to the readjustment of representation in the House of Commons. This Act and the B.N.A. Acts, 1867 to 1951, may be cited together as the British North America Acts, 1867 to 1952.
17 June 18	<i>An Act to Amend the Canada Elections Act</i> increases the salary of the Chief Electoral Officer to \$12,000 per annum.
45 July 4	<i>The Members of Parliament Retiring Allowances Act</i> provides for retiring allowances, on a contributory basis, extending over more than two Parliaments, to persons who have served as Members of the House of Commons of Canada.
46 July 4	<i>The Northwest Territories Act</i> confers upon the Commissioner of the Territories legislative jurisdiction in several matters which were formerly not assigned to him and makes other administrative changes, the purpose being to give a greater measure of self-government to the Territories.
48 July 4	<i>The Representation Act, 1952,</i> provides for the redistribution of representation in the House of Commons as required by the results of the 1951 Census, increasing the membership from 262 to 265 and making changes in the boundaries of many federal constituencies.
Finance—	
2 Apr. 1	<i>The Appropriation Act, No. 1, 1952,</i> grants certain sums of money to be paid out of the Consolidated Revenue Fund for defraying stated expenses of the public service for 1952-53.
3 Apr. 1	<i>The Appropriation Act, No. 2,</i> grants payment of \$246,542,813 out of the Consolidated Revenue Fund for defraying certain expenses of the public service chargeable to the year 1951-52.
4 May 29	<i>The Appropriation Act, No. 3,</i> grants certain sums of money to be paid out of the Consolidated Revenue Fund for defraying stated expenses of the public service for 1952-53.
18 June 18	<i>An Act to Amend the Canada-France Income Tax Convention Act, 1951</i> confirms an amendment to the Canada-France Income Tax Convention entered into for the avoidance of double taxation and prevention of fiscal evasion with respect to income taxes.
23 June 18	<i>An Act to Amend the Customs Tariff</i> changes the rates of duty on numerous items as listed in the Schedule to the Act.

**Legislation of the Sixth Session of the Twenty-first Parliament,
Feb. 28, 1952, to Nov. 20, 1952—continued**

Subject, Chapter and Date of Assent	Synopsis
Finance—concl.	
24 June 18	<i>An Act to Amend the Dominion Succession Duty Act</i> makes a number of changes to correct inaccuracies and anomalies that have shown up as a result of the experience of recent years.
26 June 18	<i>An Act to Amend the Excise Act, 1934.</i> The amendments include changes in the definitions of spirits and tobacco and are concerned mainly with penalties under the Act.
27 June 18	<i>An Act to Amend the Excise Act.</i> This Act implements excise and sales tax changes contained in the Budget.
29 June 18	<i>An Act to Amend the Income Tax Act</i> implements the Budget proposals regarding changes in the income tax.
30 June 18	<i>An Act to Amend the Industrial Development Bank Act</i> gives authority to the Bank financially to assist commercial air services operating in Canada in the same manner as other industrial enterprises, and increases from \$25,000,000 to \$50,000,000 the limitation of aggregate financial assistance that can be extended to borrowers in individual amounts exceeding \$200,000.
32 June 18	<i>An Act to Amend the Tariff Board Act</i> provides for salary increases for members of the Board.
40 July 4	<i>The Currency, Mint and Exchange Fund Act.</i> This Act brings up to date the provisions of the previous Currency Act as well as the legislative provisions relating to the Royal Canadian Mint. The Foreign Exchange Control Act is repealed and in its stead the general provisions of the Exchange Fund Act 1935 are brought back into force.
49 July 4	<i>The Tax Rental Agreements Act, 1952</i> authorizes the Federal Government to enter into taxation agreements with the provinces for the five-year period ending Mar. 31, 1957. Under the agreements, the provinces give the Federal Government almost exclusive use of the personal income, corporation and inheritance tax fields. In return the provinces receive payments based on population and value of gross national production.
55 July 4	<i>The Appropriation Act, No. 4, 1952,</i> grants certain sums of money to be paid out of the Consolidated Revenue Fund for defraying stated expenses of the public service for 1952-53.
Immigration—	
42 July 4	<i>The Immigration Act</i> revises completely the legislation regarding the entry of immigrants into Canada. Previous legislation is repealed.
Justice—	
11 May 29	<i>An Act to Amend the Prisons and Reformatories Act</i> provides for the issuing of licences of leave to women and girls confined to the Interprovincial Home for Young Women at Coverdale, N.B., in cases where good conduct has been demonstrated.
12 May 29	<i>An Act to Amend the Supreme Court Act</i> advances the date of opening of the first session of the Supreme Court in each year.
22 June 18	<i>An Act to Amend the Criminal Code (Race Meetings)</i> changes from a graduated scale to a fixed scale the percentages that may be retained by racing associations from the money wagered on each race.
39 July 4	<i>An Act to Amend the Combines Investigation Act and the Criminal Code.</i> In cases where corporations are found guilty of an offence under Sect. 493 or 498A of the Criminal Code or of an offence under Sect. 32 of the Combines Investigation Act, provision is made for the imposition of a penalty not only on the Corporation but also on any officer or director who acquiesces or assents in the offence.
Labour—	
51 July 4	<i>An Act to Amend the Unemployment Insurance Act, 1940,</i> among other amendments, raises unemployment insurance benefits without increasing contributions and reduces the waiting period by three days.
Mines and Resources—	
25 June 18	<i>An Act to Amend the Emergency Gold Mining Assistance Act</i> extends the provisions of the Act to the years 1952 and 1953.
41 July 4	<i>An Act to Amend the Eastern Rocky Mountain Forest Conservation Act.</i> This amendment extends for one year to Apr. 1, 1955, the capital expenditure period under the Act and increases the yearly allotment from \$300,000 to \$450,000. The Government of Alberta agrees to assume full maintenance costs but the capital expenditure remains the responsibility of the Government of Canada.

**Legislation of the Sixth Session of the Twenty-first Parliament,
Feb. 28, 1952, to Nov. 20, 1952—continued**

Subject, Chapter and Date of Assent	Synopsis
National Defence—	
6 May 29	<i>The Canadian Forces Act, 1950.</i> Amendments under this Act to the National Defence Act, the Civil Service Superannuation Act, the Defence Services Pension Act and the Senate and House of Commons Act are largely technical in nature.
33 July 4	<i>An Act to Amend the Army Benevolent Fund Act, 1947,</i> increases the rate of interest to be credited to the Fund from 2½ p.c. to 3½ p.c. per annum
38 July 4	<i>An Act to Amend the Civilian War Pensions and Allowances Act</i> amends Schedules I and II of the Act to provide increases comparable to those made in the basic scale of pensions under the Pension Act.
47 July 4	<i>An Act to Amend the Pension Act</i> adjusts the allowance for excessive wear and tear of a pensioner's clothing on account of amputation or use of appliances and makes more adequate provision for dependants of a deceased member of the forces.
52 July 4	<i>An Act to Amend the Veterans Benefit Act, 1951,</i> extends until the last day of the first session of Parliament, 1953, the date of expiration of the Act.
53 July 4	<i>An Act to Amend the Veterans Insurance Act</i> permits the payment to an estate of the face value of the insurance policy in cases where the proceeds of the policy pass to the estate of the insured.
54 July 4	<i>The War Veterans Allowance Act, 1952,</i> revises completely the legislation contained in the War Veterans' Allowance Act, 1946, and includes certain new provisions for increased allowance, for raising the amount of permissible income and for assisting employable veterans.
Trade and Commerce—	
7 May 29	<i>An Act to Amend the Export and Import Permits Act</i> increases from \$500 to \$5,000 the maximum penalty for infractions of the Act and extends from six to twelve months the time allowed for the launching of prosecutions.
21 June 18	<i>An Act to Amend the Cold Storage Act</i> gives authority to increase from 30 p.c. to 33½ p.c. the subsidy on warehouse projects approved by government engineers and authorizes the payment of the subsidies as soon as the buildings are completed and approved.
Transportation and Communi- cations—	
5 May 29	<i>An Act respecting the Appointment of Auditors for National Railways</i> appoints independent auditors for 1952 to make a continuous audit of the national railway accounts.
10 May 29	<i>An Act respecting the New Westminster Harbour Commissioners</i> extends the boundaries of the harbour eastward from the Fraser River to Kanaka Creek and northeastward in the Pitt River as far as Pitt Lake.
14 June 18	<i>An Act to Amend the Aeronautics Act</i> provides for the zoning of airports.
20 June 18	<i>An Act respecting the construction of a line of railway by Canadian National Railway Company from Terrace to Kitimat, in the Province of British Columbia</i> gives the authority for the construction of such railway and its financing.
28 June 18	<i>The Government Property Traffic Act</i> authorizes the Governor in Council to make regulations for the control of traffic on any land belonging to or occupied by Her Majesty in the right of Canada.
34 July 4	<i>The Belleville Harbour Commissioners Act</i> authorizes the establishment of a Corporation consisting of the Mayor of Belleville and two commissioners appointed by the Governor in Council, which, under the provision of the Act, shall have jurisdiction within the limits of the harbour.
36 July 4	<i>The Canadian National Railways Capital Revision Act, 1952,</i> revises the capital structure of the Canadian National Railway Company and provides for certain other financial matters including the reduction of indebtedness.
37 July 4	<i>The Canadian National Railways Financing and Guarantee Act, 1952,</i> authorizes the provision of moneys to meet certain capital expenditures during 1952 and authorizes the guarantee of certain securities to be issued by the Company.

**Legislation of the Sixth Session of the Twenty-first Parliament,
Feb. 28, 1952, to Nov. 20, 1952—concluded**

Subject, Chapter and Date of Assent	Synopsis
Transportation and Communi- cations—concl. 43 July 4	<i>An Act to Amend the International Boundary Waters Treaty Act</i> increases the salaries of the Canadian members of the International Joint Commission, brings the employees under the Civil Service Superannuation Act and provides that all expenses be paid out of moneys appropriated by Parliament.
Miscellaneous— 13 May 29	<i>An Act to Amend the Victoria Day Act</i> provides that the Victoria Day holiday shall be on the first Monday immediately preceding May 25 each year.
31 June 18	<i>The National Library Act</i> provides for the establishment of a National Library and for the appointment and remuneration of a National Librarian and an Assistant National Librarian.
44 July 4	<i>The Marine and Aviation War Risks Act</i> authorizes the Minister of Finance to enter into agreements, for insurance and reinsurance against certain risks of loss or damage in connection with ships, aircraft and cargo arising out of war risks.
50 July 4	<i>The Treaty of Peace (Japan) Act 1952</i> provides for carrying into effect the Treaty of Peace between Japan and Canada.

PART V.—CANADIAN CHRONOLOGY, 1867-1952

Events in the General Chronology from 1497 to 1866 are given in the 1951 Year Book, pp. 46-49. References regarding federal or provincial elections or changes in legislatures or ministries are not included in the following chronology since such information is given in Chapter II on Constitution and Government.

1867. Mar. 29, Royal Assent given to the British North America Act. July 1, The Act came into force; Union of the Province of Canada, Nova Scotia and New Brunswick as the Dominion of Canada; Upper and Lower Canada made separate provinces named Ontario and Quebec; Viscount Monck, first Governor General; Sir John A. Macdonald, Prime Minister. Nov. 6, Meeting of the first Dominion Parliament.
1868. July 31, The Rupert's Land Act authorizing the acquisition by Canada of the Northwest Territories.
1869. First negotiations for union of Newfoundland with Canada end in failure. June 22, Act providing for the government of the Northwest Territories. Nov. 19, Deed of surrender to the Crown of the Hudson's Bay Company's territorial rights in the Northwest. Outbreak of the Red River Rebellion under Riel.
1870. May 12, Act to establish the Province of Manitoba. July 15, Northwest Territories transferred to Canada and Manitoba admitted into Confederation. Aug. 24, End of Red River Rebellion.
1871. Apr. 2, First Dominion Census: population 3,689,257. Apr. 14, Act establishing uniform currency in Canada. May 8, Treaty of Washington signed. July 20, British Columbia entered Confederation. The Canadian Government undertook to begin construction of a transcontinental railway within two years and to complete it within ten years.
1872. June 14, Canadian Pacific Railway general charter passed by the Canadian Parliament authorizing construction of a transcontinental line by a private company.
1873. May 23, Act establishing the North West Mounted Police (R.C.M.P.). July 1, Prince Edward Island entered Confederation.
1874. May 26, The Dominion Elections Act. Population of Newfoundland and Labrador, 161,374.
1875. Apr. 8, The Northwest Territories Act establishing a Lieutenant-Governor and a Northwest Territories Council. April-May, Work on the Canadian Pacific Railway as a Government line begun at Fort William.
1876. June 1, Opening of the Royal Military College, Kingston. June 5, First sitting of the Supreme Court of Canada. July 3, Opening of the Intercolonial Railway from Quebec to Halifax.
1877. October, First wheat exported from Manitoba to the United Kingdom.
1878. July 1, Canada joined the International Postal Union.
1879. May 15, Adoption of a protective tariff ("The National Policy").
1880. May 6, First meeting and exhibition of the Royal Canadian Academy of Arts. May 11, Sir A. T. Galt appointed first Canadian High Commissioner at London. Sept. 1, All British possessions in North America and adjacent islands (except Newfoundland and its dependencies)

- annexed to Canada by Imperial Order in Council of July 31. Oct. 21, Signing of contract with the present Canadian Pacific Railway Company for the completion of the Canadian Pacific Railway.
1881. Apr. 4, Second Dominion Census: population 4,324,810. May 2, First sold turned for Canadian Pacific Railway as a company line.
1882. May 8, Provisional District of Assiniboia, Saskatchewan, Athabaska and Alberta formed. May 25, First meeting of the Royal Society of Canada. Aug. 23, Regina established as seat of government of the Northwest Territories.
1884. Aug. 11, Settlement of the boundary of Ontario and Manitoba.
1885. Mar. 26 - May 16, Riel's second rebellion in the Northwest. Apr. 24, Engagement at Fish Creek. May 2, Engagement at Cut Knife. May 12, Taking of Batoche. May 16, Surrender of Riel. July 20, The Electoral Franchise Act. Nov. 7, Last spike of Canadian Pacific Railway main line driven at Craigellachie, B.C. Nov. 16, Execution of Riel.
1886. June 13, Vancouver destroyed by fire. June 28, First through train of the Canadian Pacific Railway left Montreal for Port Moody. July 31, Census of Manitoba: population 108,640.
1887. Interprovincial Conference at Quebec. Apr. 4, First Colonial Conference at London. Apr. 16, Welland Canal opened for navigation.
1890. Mar. 31, The Manitoba School Act abolishing separate schools.
1891. Apr. 5, Third Dominion Census: population 4,833,239. June 6, Death of Sir John A. Macdonald.
1892. Feb. 29, Washington Treaty, providing for arbitration of the Bering Sea Seal Fisheries question. July 22, Boundary Convention between Canada and United States. Fire destroyed the greater part of St. John's, Newfoundland; \$20,000,000 damage.
1894. June 28, Second Colonial Conference at Ottawa.
1895. Sept. 10, Opening of new Sault Ste. Marie Canal. Second confederation talks of Canada and Newfoundland fail.
1896. August, Gold discovered in the Klondyke. Railroad completed across Newfoundland from St. John's to Port aux Basques.
1897. June 22, Diamond Jubilee of Queen Victoria. July, Third Colonial Conference at London. Dec. 17, Award of Bering Sea Arbitration Court.
1898. June 13, The Yukon District established as a separate Territory. Aug. 1, British Preferential Tariff came into force. Aug. 23, Meeting at Quebec of the Joint High Commission between Canada and the United States. Dec. 25, Imperial penny (2-cent) postage introduced.
1899. Oct. 11, Outbreak of the South African War. Oct. 29, First Canadian Contingent left Quebec for South Africa.
1900. Feb. 27, Battle of Paardeberg. Apr. 26, Great fire at Ottawa and Hull.
1901. Jan. 22, Death of Queen Victoria and accession of King Edward VII. Apr. 1, Fourth Dominion Census: population 5,371,315. Sept. 16 - Oct. 21, Visit to Canada of the Duke and Duchess of Cornwall and York. Dec. 12, First transatlantic wireless signal received by Marconi at St. John's, Newfoundland. Population of Newfoundland and Labrador, 220,984.
1902. May 31, Peace signed at Vereeniging ending the South African War. June 30, Fourth Colonial Conference at London.
- December, First message sent by wireless from Canada to the United Kingdom via Cape Breton, N.S.
1903. Jan. 24, Signing of the Alaskan Boundary Convention. Oct. 20, Award of the Alaskan Boundary Commission.
1904. Feb. 1, Dominion Railway Commission established. Apr. 19, Great fire at Toronto. Oct. 8, Incorporation of Edmonton. An Anglo - French Convention settled the question of shore rights for French fishermen. France surrendered these rights in return for cash indemnities and territorial concessions in Africa.
1905. Sept. 1, Creation of the Provinces of Alberta and Saskatchewan.
1906. Roald Amundsen, in the schooner *Gjoa*, arrived at Nome, Alaska, the first completed traverse of the North - West Passage. June 24, First separate census of the three Prairie Provinces: population 808,646. Oct. 8, Interprovincial Conference at Ottawa.
1907. Apr. 15-May 14, Fifth Colonial Conference at London. Oct. 17, Transatlantic wireless open for public service. Dec. 6, First recorded passenger flight in Canada of a heavier - than - air machine (Dr. Graham Bell's tetrahedral kite, *Cygnét*).
1908. Jan. 2, Establishment at Ottawa of a branch of the Royal Mint. July 20-31, Quebec tercentenary celebrations. Visit of George, Prince of Wales, to Quebec.
1909. Jan. 11, Signing of International Boundary Waters Convention between Canada and United States. Feb. 23, First flight in British Empire of a heavier - than - air machine under its own power piloted by a British subject (McCurdy's *Silver Dart* at Braddock's Bay, N.S.).
1910. May 6, Death of King Edward VII. Accession of King George V. Sept. 7, North Atlantic Coast Fisheries Arbitration Award of The Hague Tribunal defining United States fishing rights. Trade agreements made with Germany, Belgium, Holland and Italy. Oct. 11, Inauguration at Berlin (now Kitchener) of Ontario Hydro-Electric Power Commission's transmission system.
1911. May 23 - June 20, Imperial Conference at London. June 1, Fifth Dominion Census: population 7,206,643. Population of Newfoundland and Labrador 242,619.
1912. Mar. 29 - Apr. 9, First Canada-West Indies Trade Conference held at Ottawa. Appointment of Dominions Royal Commission. May 15, Boundaries Extension Act settling boundaries of Quebec, Ontario and Manitoba.
1914. Aug. 4, War with Germany; Aug. 12, with Austria - Hungary; Nov. 5, with Turkey. Aug. 18-22, Special war session of Canadian Parliament. Oct. 16, First Canadian Contingent of over 33,000 troops landed at Plymouth, England.
1915. February, First Canadian Contingent landed in France and proceeded to Flanders.
1916. Jan. 12, Number of Canadian troops increased to 500,000. Feb. 3, Destruction by fire of the Houses of Parliament at Ottawa. June 1, Census of Prairie Provinces: population 1,698,137. Sept. 1, Corner-stone of new Houses of Parliament laid by Duke of Connaught.
1917. Feb. 12 - May 15, Imperial Conference. Mar. 20 - May 2, Meetings at London of Imperial War Cabinet. Mar. 21-Apr. 27, Imperial War Conference. Sept. 20, Parliamentary franchise in Federal elections extended to women. Dec. 8, Serious explosion at Halifax, N.S.

1918. June-July, Imperial War Conference held at London. Sept. 30, Bulgaria surrendered and signed armistice. Oct. 31, Turkey surrendered and signed armistice. Nov. 4, Austria - Hungary surrendered and signed armistice. Nov. 11, Capture of Mons. Germany surrendered. Armistice signed.
1919. Feb. 17, Death of Sir Wilfrid Laurier. June 28, Signing at Versailles of Peace Treaty and Protocol. Aug. 22, Formal opening of Quebec Bridge by Edward, Prince of Wales. Sept. 1, The Prince of Wales laid foundation stone of Peace Tower, Parliament Buildings, Ottawa. Dec. 20, Organization of Canadian National Railways.
1920. Jan. 10, Ratification of the Treaty of Versailles. May 31 - June 18, Trade Conference at Ottawa between Canadian and West Indian Governments. July 16, Ratification of the Treaty of St. Germain-en-Laye. Aug. 9, Ratification of the Treaty of Neuilly-sur-Seine. Nov. 15, First meeting of League of Nations Assembly began at Geneva, Switzerland.
1921. May 10, Preferential tariff arrangement with British West Indies became effective. June 1, Sixth Dominion Census: population 3,787,949. June 20 - Aug. 5, Imperial Conference. Nov. 11, Opening of Conference on Limitation of Armament at Washington. Population of Newfoundland and Labrador, 263,033.
1922. Feb. 1, Arms Conference at Washington approved five-power treaty limiting capital ships and disapproving unrestricted submarine warfare and use of poison gas. Apr. 10, General Economic Conference at Genoa, Italy. July 13, Conference between Canada and the United States re perpetuating the Rush-Bagot Treaty regarding armament on the Great Lakes. Aug. 7, Allied Conference on war debts and reparations opened at London. Dec. 9, Reparations Conference opened at London.
1923. Oct. 1, Imperial Conference and Economic Conference at London. Newfoundland railway and subsidiaries taken over by the Government of Newfoundland.
1926. June 1, Census of Prairie Provinces: population 2,067,393. Oct. 19-Nov. 23, Imperial Conference at London. Nov. 26, Hon. C. Vincent Massey appointed first Envoy Extraordinary and Minister Plenipotentiary to the United States.
1927. Mar. 1, Labrador Boundary Award by the Privy Council. June 1, Hon. Wm. Phillips, first U.S. Minister to Canada, reached Ottawa. July 1-3, Diamond Jubilee of Confederation celebrated throughout Canada. Oct. 4, First air-mail service in Canada. November, Dominion-Provincial Conference at Ottawa.
1928. Apr. 25, Sir Wm. H. Clark appointed first British High Commissioner to Canada. May 31, Legislative Council of Nova Scotia ceased to exist, leaving Quebec the only province with a bicameral legislature.
1929. Dec. 14, Transfer of natural resources by Federal Government to Manitoba and Alberta.
1930. Feb. 20, Transfer of natural resources to British Columbia. Mar. 20, Transfer of natural resources to Saskatchewan. Oct. 1, Imperial Conference at London.
1931. June 1, Seventh Dominion Census: population 10,376,786. Dec. 12, Statute of Westminster became effective, establishing complete legislative equality of the Parliament of Canada with that of the United Kingdom and exempting Canada and the Provinces from the operation of the Colonial Laws Validity Act and the Merchant Shipping Act.
1932. July 21 - Aug. 20, Imperial Economic Conference at Ottawa. Aug. 6, Official opening of the Welland Ship Canal.
1933. Jan. 17-19, Dominion-Provincial Conference. Newfoundland in financial straits owing to the depression; British Government asked to appoint a Royal Commission to investigate and make recommendations.
1934. Jan. 30, Newfoundland constitution suspended; a Commission of Government took office Feb. 16. August, Celebration at Gaspe of the 400th anniversary of the first landing of Jacques Cartier.
1935. Mar. 11, Bank of Canada commenced business. Dec. 9, Dominion - Provincial Conference at Ottawa; Naval Limitation Conference at London.
1936. Jan. 20, Death of King George V. Accession of King Edward VIII. June 1, Census of Prairie Provinces: population 2,415,545. July 26, Unveiling of Vimy Memorial in France by King Edward VIII. Dec. 11, Abdication of King Edward VIII and accession of King George VI.
1937. May 12, Coronation of King George VI. July 8, Imperial Airways flying boat *Caledonia* arrived at Montreal from Southampton, inaugurating the experimental phase of the Transatlantic Airways.
1938. Mar. 4, Unanimous judgments of the Supreme Court of Canada in favour of the Federal Government on the Alberta constitutional references. (See 1941 Year Book, p. 19, for further references to this subject.) Oct. 1, Occupation of Sudeten areas of Czechoslovakia by Germany. Nov. 17, Trade Agreement between Canada and United States signed at Washington.
1939. Mar. 14, Invasion of Czechoslovakia by Germany. May 17 - June 15, Visit of Their Majesties King George VI and Queen Elizabeth to Canada and the United States. Aug. 24, German-Soviet Russia mutual non-aggression treaty signed. Sept. 1, Poland invaded by Germany. Sept. 3, War with Germany declared by the United Kingdom and France. Sept. 10, Canada declared war upon Germany. Dec. 17, Canadian troops landed in United Kingdom. British Commonwealth Air Training Plan Agreement signed at Ottawa by United Kingdom, Canada, Australia and New Zealand.
1940. Jan. 1, First municipal government in the Northwest Territories inaugurated at Yellowknife. Apr. 9, Germany invaded Denmark and Norway. Apr. 25, Quebec women granted franchise in provincial elections and enabled to qualify as candidates for the Legislature. June 22, Armistice signed between France and Germany. Aug. 17-18, Conference on defences of the northern half of the Western Hemisphere held at Ogdensburg, N.Y.; Permanent Joint Board on Defence created.
1941. Canada and the United States acquired bases in Newfoundland by 99-year lease. Jan. 14-15, Dominion-Provincial Conference, called to consider findings of Royal Commission on Dominion-Provincial Relations, terminated without agreement. June 11, Eighth Dominion Census: population, 11,506,655. June 22, Germany attacked Russia. July 13, Canada approved Anglo-Soviet treaty. Dec. 7, Japanese attack on Pearl Harbour.

- Canada declared state of war with Roumania, Hungary, Finland and Japan. Dec. 8, Britain and United States declared war on Japan. Dec. 11, Germany, Italy and United States formally declared war.
1942. Jan. 2, Signing at Washington of joint declaration by 26 nations (including Canada), binding each to employ its full resources against the Axis Powers. July 3, Formation of Canada-United States joint naval, military and air staff at Washington. Aug. 19, Raid on Dieppe by Canadian troops supported by British, United States and Fighting French troops; Canadian casualties 3,350 out of 5,000 engaged. Nov. 9, Canada broke off relations with Vichy, France.
1943. Jan. 14-24, Prime Minister Churchill and President Roosevelt met at Casablanca to draft United Nations' war plans. May 12, Fighting ended in North Africa. July 10, British, Canadian and United States forces invaded Sicily. Aug. 10-24, Anglo-American War Conference held at Quebec city. Aug. 15, Canada and United States troops occupied Kiska Island in the Aleutians. Aug. 25, President Roosevelt visited Ottawa, the first official visit by a United States President to Canada's capital. Sept. 8, Unconditional surrender of Italy. Nov. 9, Canada signed UNRRA Agreement. Dec. 24, Gen. Dwight D. Eisenhower named Commander-in-Chief of Allied Forces for invasion of Europe.
1944. Mar. 20, Lt.-Gen. H. D. G. Crerar appointed to command the First Canadian Army. May 1-16, Conference of British Commonwealth countries at London, England. June 6, Allied invasion of Western Europe commenced. July 1-22, United Nations monetary and financial conference of 44 nations held at Bretton Woods, N.H., U.S.A. July 23, The 1st Canadian Army commenced operations in Normandy as a separate army. Sept. 11-16, Second Quebec Conference attended by Prime Minister Churchill and President Roosevelt. Sept. 16, Siegfried Line broken by Allied troops. The Government of Canada recognized the Provisional Government of the French Republic. Nov. 1-Dec. 7, International Civil Aviation Conference of 54 nations, including Canada, held at Chicago, U.S.A.
1945. Apr. 25-June 26, United Nations World Security Conference met at San Francisco to prepare a charter for a general international organization. May 2, The war in Italy and part of Austria ended. May 7, Unconditional surrender of the German Armed Forces. June 6, Establishment of Provisional International Civil Aviation Organization (P.I.C.A.O.) by 26 nations, including Canada. July 4, Canadian military troops entered Berlin as part of the British garrison force. July 26, The Potsdam Declaration issued by the Allied Powers. Aug. 6, First atomic bomb dropped at Hiroshima, Japan. Aug. 6-10, Dominion-Provincial Conference at Ottawa. Aug. 8, U.S.S.R. declared war against Japan. Aug. 9, Second atomic bomb dropped on the naval base of Nagasaki, Japan. Sept. 1, Japanese officials signed the terms of unconditional surrender. Oct. 16-Nov. 1, United Nations Food and Agriculture Organization Conference of 29 countries, including Canada, held at Quebec city. Dec. 17-28, U.K., U.S., and U.S.S.R. announced agreements on the United Nations control of atomic power. Population of Newfoundland including Labrador, 321,819.
1946. Jan. 10 - Feb. 15, First General Assembly of the United Nations held at London, England. Jan. 24, Establishment of Atomic Energy Commission upon which Canada is represented. Feb. 6, Judge John E. Read of Canada elected a Judge of the International Court of Justice for a 3-year term. Apr. 29, The Dominion-Provincial Conference (adjourned Aug. 10, 1945) resumed its sittings, and adjourned without an agreement. June 1, Census of Prairie Provinces: population 2,362,941. June 9, The Rt. Hon. W. L. Mackenzie King established record for length of service as Prime Minister of Canada. June 21, A National Convention elected in the Island of Newfoundland to consider the economic situation and future form of government. June - Sept., The National Convention delegation at Ottawa discuss the basis for federal Union of Newfoundland with Canada. July 29 - Oct. 15, Peace Conference at Luxembourg Palace, Paris, France, to study texts of treaty agreements drafted by Allied Foreign Ministers Council.
1947. Jan. 14, Canada elected to Economic and Social Council of United Nations. June, A delegation from the National Convention went to Ottawa to discuss union between Newfoundland and Canada. June 10-12, President Truman visited Ottawa. July 31, Canada represented at Imperial Privy Council meeting at London, England, for approval of marriage of Princess Elizabeth to Lieutenant Philip Mountbatten. Sept. 30, Canada elected to United Nations Security Council for two-year term. Nov. 20, Marriage of H.R.H. the Princess Elizabeth, Duchess of Edinburgh, and H.R.H. Prince Philip, Duke of Edinburgh at Westminster Abbey.
1948. Jan. 8, Gen. A. G. L. McNaughton appointed permanent delegate of Canada to the United Nations and Representative of Canada on the Security Council. The Rt. Hon. W. L. Mackenzie King established length-of-service record for any Prime Minister of The Commonwealth. July 22, Referendum in Newfoundland favoured confederation. Oct. 6-27, Representatives of Canada and Newfoundland met at Ottawa to discuss final arrangements for Newfoundland's entry into Confederation. Oct. 22, Judge John F. Read re-elected to International Court of Justice for a 9-year term. Nov. 14, A son (Prince Charles Philip Arthur George) born to Princess Elizabeth and Prince Philip. Nov. 15, Governor General Viscount Alexander accepted the resignation of retiring Prime Minister The Rt. Hon. W. L. Mackenzie King. The Rt. Hon. L. S. St. Laurent became Prime Minister of Canada. Dec. 11, Agreement signed under which Newfoundland was to enter Confederation.
1949. Mar. 23, Royal Assent given to the North America Bill passed by the British Parliament for the union of Canada and Newfoundland. Mar. 31, Newfoundland became the tenth Province of Canada. Apr. 4, Canada signed the North Atlantic Treaty at Washington, D.C. Apr. 18, Ireland (Eire) became the Republic of Ireland. Apr. 23, India became a sovereign independent republic within

- the Commonwealth. May 17, Canadian Government granted full recognition to Israel. May 27, First general election in Newfoundland as a Province of Canada. July 13, Opening of first Provincial Legislature of Newfoundland at St. John's. Aug. 24, Formal proclamation of North Atlantic Pact at Washington, D.C. Dec. 10, An amendment to the Supreme Court Act received Royal Assent, giving final authority in judicial matters to the Supreme Court of Canada. Dec. 12, Mrs. Nancy Hodges named Speaker of the British Columbia Legislature, the first woman to hold the office of Speaker in a Commonwealth legislature. Dec. 16, British North America Act amended by vesting in the Parliament of Canada the power to make amendments to the Constitution of Canada in federal matters.
1950. Jan. 9-14, Canada represented at Commonwealth Conference on Foreign Affairs at Colombo, Ceylon. Jan. 10-12, Federal - Provincial Conference held at Ottawa; Premiers of the ten provinces met with Prime Minister St. Laurent to discuss the question of constitutional amendments. Mar. 27, Formal agreement signed transferring to Ontario the Canadian water rights in the Niagara River. Apr. 1-3, Defence Ministers of 12 Atlantic Treaty powers at The Hague, The Netherlands, approved a collective plan of self-defence against aggression. April-May, Red River flood. May 1, Construction started on interprovincial oil pipe line from the Edmonton district to the head of Lake Superior. May 6, Disastrous fire at Rimouski, Que. May 9, Fire destroyed one-third of the village of Cabano, Que. May 29, The R.C.M.P. Supply Ship *St. Roch*, the first vessel to circumnavigate the Continent of North America, reached Halifax, N.S., through the Panama Canal to complete the voyage. June 25, Invasion of the Republic of Korea by North Korean forces. June 28, The United Nations Security Council issued a call to all 59 member nations for help to end the Korean conflict. July 6, United Nations Security Council set up a United Nations command. July 8, Gen. Douglas MacArthur appointed as Supreme Commander of the United Nations Security Council Forces. July 12, Three Canadian destroyers, H.M.C.S. *Cayuga*, *Athabaskan* and *Sioux*, arrived at Pearl Harbour with orders to proceed to Korea under operational command of Gen. MacArthur. July 19, A non-combatant R.C.A.F. transport squadron ordered to join the United States air-lift in Korea. Navy, Army and Air Force regular strength ordered brought up to operational strength. July 22, The Rt. Hon. William Lyon Mackenzie King died at Kingsmere, Que., at the age of 75 years. Aug. 1, R.C.M.P. took over policing of Newfoundland. Aug. 7, Decision announced to create a special Canadian armed force for the United Nations. Aug. 8, Agreement reached re emergency industrial mobilization at meeting of Joint United States - Canada Industrial Mobilization Planning Committee at Ottawa. Aug. 9, Brig. J. M. Rockingham, C.B.E., D.S.O., of Victoria, B.C., to head Canada's United Nations brigade. Aug. 10, Fifty-year treaty between Canada and the United States re increase in power output of Niagara River put into effect by Niagara Power Pact signed by United States Senate. Aug. 15, A daughter (Princess Anne Elizabeth Alice Louise) born to Princess Elizabeth and Prince Philip. R.C.M.P. took over policing of British Columbia. Air Service Pact signed by Canada and New Zealand, providing for direct carriage of traffic between the two countries. Aug. 22-30, First country-wide railway strike in Canada. Sept. 25-28, The Constitutional Conference of Federal and Provincial Governments continued its meetings at Quebec city for the purpose of devising a method of amending the Canadian Constitution. Sept. 30, Government decision to free the exchange rate of the Canadian dollar announced. Oct. 10, Canada-United States power treaty re hydro developments at Niagara Falls ratified after approval by the Canadian Parliament (June 19, 1950) and United States Senate (Aug. 9, 1950). Oct. 26, Canada and United States signed an agreement setting out six economic principles for joint defence production. Oct. 28, Term of Governor General, Field Marshal Viscount Alexander, extended one year. Oct. 31, Completion of 1,100-mile oil pipe line connecting Edmonton with Great Lakes. Nov. 1, Restrictions placed on consumer credit. Nov. 28, "Colombo Plan" to raise the living standards of Asiatic peoples and for development of south and southeast Asia during next six years announced; Canada one of the seven participating countries. Dec. 4-7, Federal - Provincial Conference met at Ottawa to discuss general questions of common concern to the Federal and Provincial Governments. Dec. 18, The 2nd Battalion of the Princess Patricia's Canadian Light Infantry, landed at Pusan, the first Canadian troops other than advance personnel to arrive in Korea. Dec. 18-19, Joint meetings of the North Atlantic Treaty Defence Committee and Council held at Brussels, Belgium.
1951. Jan. 4-12, Prime Ministers and Leaders of the Commonwealth countries met at London to discuss the defence policy of the Commonwealth. Canada was represented by Prime Minister The Rt. Hon. L. S. St. Laurent. Jan. 13, The first group of Royal Air Force aircrew trainees arrived by air at Dorval, Que. Jan. 22, The destroyer H.M.C.S. *Huron* placed under United Nations command. Jan. 30-31, The Rt. Hon. S. G. Holland, Prime Minister of New Zealand, visited Ottawa. Feb. 2-3, René Pleven, Premier of France, paid an official courtesy visit to Ottawa. Feb. 5, A three-year \$5,000,000,000 defence program for the Armed Forces and the establishment of a National Advisory Council on manpower announced. Feb. 19, Canadian Government contribution of \$25,000,000 approved for the first year of the six-year Colombo Plan. Feb. 20, Second Battalion of the Princess Patricia's Canadian Light Infantry in front-line action in Korea. Feb. 21, The Council for Technical Co-operation of the British Commonwealth countries advanced program for the exchange of technical experts and training under Colombo Plan. Feb. 27, Canada posted Army officer with Supreme Allied Commander's staff, the first step in providing Canadian ground troops for Europe. Mar. 2, Federal Government announced \$65,000,000 payment to western farmers on United Kingdom

wheat agreement of 1946-50. Mar. 2, First Canadian casualty list from Korea—six dead. Mar. 9, Federal Parliament approved incorporation of Trans-Canada Pipe Line to build 3,100-mile natural gas pipe line from Alberta to Montreal. Mar. 15, Report of the Royal Commission on Transportation tabled in the House of Commons. Mar. 20, Field Marshal Viscount Montgomery named Deputy Commander of Atlantic Treaty Army. Mar. 27, Agreement ratified between Canada and the United States providing for co-ordinated civil defence planning and action along the border between the two countries. Apr. 1, Department of Defence Production established with the Rt. Hon. C. D. Howe as Minister. Apr. 2, Gen. Eisenhower took command of NATO forces in Europe. Apr. 5-8, Vincent Auriol, President of France, visited Canada and addressed the Senate and the House of Commons at Ottawa. Apr. 11, Lt.-Gen. Matthew B. Ridgway given Supreme Command of United Nations Forces in Korea, *vice*, Gen. Douglas MacArthur. Apr. 24, First shipment of oil from Alberta by pipe line and freighter flowed into storage tanks at Sarnia. May 1, Minister of National Defence announced that the 25th Canadian Infantry Brigade Group would join other Commonwealth forces in Korea as "The First (Commonwealth) Division, United Nations Forces". May 4, Minister of National Defence announced formation of 27th Canadian Infantry Brigade Group to serve in Europe with the NATO defence forces. Vanguard of 25th Canadian Infantry Brigade landed at Pusan, Korea. May 8, Trade agreements between Canada and 16 countries resulting from the Torquay meeting of the parties to the General Agreement on Tariffs and Trade in 1950-51, signed at U.N. headquarters. June 1, Report of the Royal Commission on National Development in the Arts, Letters and Sciences tabled in the House of Commons. Ninth decennial census of Canada taken. June 15, An amendment to the Northwest Territories Act provides for a partially elective council. July 10, Canada formally ended state of war with Germany by Royal Proclamation. Sept. 8, Japanese Peace Treaty signed by 48 nations at San Francisco; Hon. L. B. Pearson, Minister of External Affairs, signed for Canada. Sept. 10, Canada and Pakistan signed a technical assistance pact; Canada will provide technical and equipment aid amounting to \$10,000,000 in the first year of Pakistan's six-year development plan. Sept. 15-20, Meeting of the Council of NATO held at Ottawa. Sept. 17, First election held in the Northwest Territories. Sept. 23, His Majesty King George VI underwent operation for lung resection. Sept. 26, David M. Johnson appointed Canada's permanent representative to United Nations *vice* Gen. A. G. L. McNaughton. Sept. 28, International Monetary Fund lifted restrictions on the selling of gold. Oct. 8-Nov. 12, Her Royal Highness the Princess Elizabeth and His Royal Highness the Duke of Edinburgh toured Canada. Oct. 18, Minister of National Defence announced Canadian Army and Air Force to maintain 12,000 officers and men on active service in Europe as part of Canada's undertaking under NATO. Oct. 26, Field Marshal Viscount

Alexander's term of office as Governor General of Canada extended. Nov. 15, First units of 27th Canadian Brigade arrived at Hanover, Germany. Dec. 3, Agreement between Government of Canada and Government of Ontario signed *re* St. Lawrence power development; approved by Federal Parliament Dec. 8. Dec. 10, First session of the partially elected Council of the Northwest Territories opened at Yellowknife, N.W.T.; previous sessions of appointed Council held at Ottawa. Dec. 12, St. Lawrence Seaway Authority established by Act of Parliament and empowered to construct and maintain the seaway either as an all-Canadian undertaking or jointly with the United States. Dec. 14, Federal Government abolished all foreign exchange control regulations. Dec. 24, Libya became a new and independent kingdom by formal proclamation.

1952. Jan. 1, Old Age Security Act 1951, under which a universal pension is paid to persons aged 70 or over, became operative; also the Old Age Assistance Act 1951, providing pensions to needy persons aged 65 to 69. Jan. 11-15, The Rt. Hon. Winston S. Churchill, Prime Minister of the United Kingdom, visited Ottawa. Jan. 28, Viscount Alexander's appointment as Governor General of Canada terminated. Feb. 6, His Majesty King George VI died; Her Majesty Queen Elizabeth II proclaimed Sovereign Ruler—Canada issued proclamation. Feb. 20-25, Ninth session of NATO Council, held at Lisbon, fixed 50 combat-ready divisions and 4,000 aircraft as two-year goal. Feb. 21, Treaty signed by Canada and the United States providing for greater safety and convenience for shipping on the Great Lakes by the use of radio. Feb. 28, The Rt. Hon. Charles Vincent Massey sworn in as Governor General of Canada, first native-born Canadian to hold that post. Apr. 21-28, Queen Juliana of The Netherlands visited Ottawa and vicinity. Apr. 28, Gen. Matthew Ridgway appointed Supreme Allied Commander in Europe. Gen. Mark W. Clark appointed United Nations Commander in Korea and Commander-in-Chief of the United States Armed Forces in the Far East. Treaty of Peace concluded at San Francisco between the Allied Powers and Japan (Sept. 8, 1951) came into force with respect to Canada. Full diplomatic relations resumed between Canada and Japan. May 5, All consumer credit restrictions suspended. June 22-26, Prime Minister of Australia, Rt. Hon. Robert Menzies, visited Ottawa. June 30, Application submitted by the Canadian Government to the International Joint Commission for an order approving the construction of works for the development of power in the international rapids section of the St. Lawrence River. July 12, Governments of Canada and Ceylon agreed to a program of economic aid to be supplied by Canada under the Colombo Plan. July 23-Aug. 9, International Red Cross Conference held at Toronto. Aug. 4, Fire in Parliamentary Library. Aug. 11-Sept. 13, Sixth British Commonwealth Forestry Conference held at Ottawa. Sept. 6, Canada's first television station officially opened at Montreal. Sept. 9-13, Biennial Conference of Commonwealth Parliamentary Association met at Ottawa. Sept. 8, Television station at Toronto officially

opened. Sept. 16, Second Session of the Statistical Division of ICAO (International Civil Aviation Organization) held at Montreal with G. A. Scott of the Transport Commission as head of the Canadian delegation. Sept. 29-Oct. 11, Second Session of the Committee on Improvement of National Statistics of the Inter-American Statistical Institute held at Ottawa; Herbert Marshall, Dominion Statistician, represented Canada. Oct. 14, Seventh Session of the United Nations General Assembly opened in New York; Hon. L. B. Pearson, Secretary of State for External Affairs, elected President. Oct. 23, Canada's new consumer price index, constructed to replace the cost of living index, was released. Oct. 29, International Joint Commission approves joint Canada-United States application for permission to develop St. Lawrence River power. Oct. 30, The 3rd Battalion of the Princess Patricia's Canadian Light Infantry arrived in Korea to replace the 1st Battalion. Nov. 4, Government of Canada advised the United States that it will commence construction of

the St. Lawrence seaway project. Nov. 21, Governor General Vincent Massey opened the Seventh Session of the 21st Parliament. Nov. 24, The first troops to return to Canada after serving one year with the 27th Infantry Brigade in Germany arrived at Quebec aboard the Greek Lines passenger ship *Neptunia*. Nov. 27-Dec. 11, British Commonwealth Conference of Prime Ministers and their deputies met at London; Rt. Hon. L. S. St. Laurent represented Canada. Dec. 1-3, Dominion-Provincial Agricultural Conference held in Ottawa. Dec. 15-18, Council of Ministers of the North Atlantic Treaty Organization (NATO) held a Conference at Paris; Hon. Brooke Claxton, Minister of National Defence, was Canada's delegate. Dec. 15, George S. Currie Report on Investigation of the Army Works Services tabled in the House of Commons. Dec. 16, Admiral Earl Mountbatten appointed NATO Commander-in-Chief in the Mediterranean. Dec. 22, Prime Minister St. Laurent announced an Act providing for the construction of a National Library.

APPENDIX I

Redistribution of the Federal Parliamentary Constituencies, 1952

Results of the Census of 1951 necessitated a readjustment in the representation of the House of Commons pursuant to the provisions of the British North America Acts, 1867 to 1951 and a Bill (No. 8) was introduced by the Prime Minister on Mar. 10, 1952, entitled: "The Representation Act, 1952". This Bill was withdrawn on June 25, 1952.

Between these two dates the Committee on Redistribution recommended to the House the presentation of two Bills: (1) a Bill to amend the British North America Act to provide for new rules with regard to redistribution; and (2), a new Representation Bill which would be in accordance with those rules.

The British North America Act, 1952 (Bill 331) was introduced in the House on June 10, 1952, and received Royal assent on June 18, 1952. The Minister of Citizenship and Immigration, the Hon. Walter E. Harris, stated on its second reading: "The opportunity to amend the B.N.A. Act and our constitution by an act of this Parliament arose in 1949 by the passing of an address requesting the insertion in the B.N.A. Act of a clause which would permit the amendment of the constitution by an act of this Parliament".

The new Act (I Eliz. II, c. 15) repeals Sect. 51 of the British North America Act and substitutes therefor as follows:—

"Section 51.—(1) Subject as hereinafter provided, the number of members of the House of Commons shall be two hundred and sixty-three and the representation of the provinces therein shall forthwith upon the coming into force of this section and thereafter on the completion of each decennial census be readjusted by such authority, in such manner, and from such time as the Parliament of Canada from time to time provides, subject and according to the following rules:

1. There shall be assigned to each of the provinces a number of members computed by dividing the total population of the provinces by two hundred and sixty-one and by dividing the population of each province by the quotient so obtained, disregarding, except as hereinafter in this section provided, the remainder, if any, after the said process of division.

2. If the total number of members assigned to all the provinces pursuant to rule one is less than two hundred and sixty-one, additional members shall be assigned to the provinces (one to a province) having remainders in the computation under rule one commencing with the province having the largest remainder and continuing with the other provinces in the order of the magnitude of their respective remainders until the total number of members assigned is two hundred and sixty-one.

3. Notwithstanding anything in this section, if upon completion of a computation under rules one and two, the number of members to be assigned to a province is less than the number of senators representing the said province, rules one and two shall cease to apply in respect of the said province, and there shall be assigned to the said province a number of members equal to the said number of senators.

4. In the event that rules one and two cease to apply in respect of a province then, for the purpose of computing the number of members to be assigned to the provinces in respect of which rules one and two continue to apply, the total population of the provinces shall be reduced by the number of the population of the province in respect of which rules one and two have ceased to apply and the number two hundred and sixty-one shall be reduced by the number of members assigned to such province pursuant to rule three.

5. On any such readjustment the number of members for any province shall not be reduced by more than fifteen per cent below the representation to which such province was entitled under rules one to four of this subsection at the last preceding readjustment of the representation of that province, and there shall be no reduction in the representation of any province as a result of which that province would have a smaller number of members than any other province that according to the results of the then last decennial census did not have a larger population; but for the purposes of any subsequent readjustment of representation under this section any increase in the number of members of the House of Commons resulting from the application of this rule shall not be included in the divisor mentioned in rules one to four of this subsection.

6. Such readjustment shall not take effect until the termination of the then existing Parliament.

(2) The Yukon Territory as constituted by chapter forty-one of the statutes of Canada, 1901, shall be entitled to one member, and such other part of Canada not comprised within a province as may from time to time be defined by the Parliament of Canada shall be entitled to one member."

On June 27, 1952, the Hon. Walter E. Harris introduced Bill 393, an Act to re-adjust the Representation in the House of Commons. Royal assent was given on July 4 to the Representation Act, 1952 (1 Eliz. II., c. 48). As a result of this legislation the total membership of the House of Commons was increased to 265 members, to be effective at the following General Election. The representation of the various provinces will be, according to Sect. 2 of the Act as follows:—

Sect. 2. Eighty-five members of the House of Commons shall be elected for the Province of Ontario, seventy-five for the Province of Quebec, twelve for the Province of Nova Scotia, ten for the Province of New Brunswick, fourteen for the Province of Manitoba, twenty-two for the Province of British Columbia, four for the Province of Prince Edward Island, seventeen for the Province of Saskatchewan, seventeen for the Province of Alberta, seven for the Province of Newfoundland, one for the Yukon Territory and one for Mackenzie district of the Northwest Territories, thus making a total of two hundred and sixty-five members.

APPENDIX II

Provincial Governments

1.—Members of the Twenty-Second Ministry of New Brunswick, as at Dec. 1, 1952

(Party standing at latest General Election, Sept. 22, 1952: 36 Conservatives, 16 Liberals.)

Office	Name
Premier and Minister of Public Works.....	Hon. HUGH JOHN FLEMMING
Attorney General.....	Hon. WILLIAM J. WEST
Provincial Secretary-Treasurer.....	Hon. D. D. PATTERSON
Minister of Agriculture.....	Hon. C. B. SHEERWOOD
Minister of Health and Social Services.....	Hon. J. F. MCINERNEY
Minister of Lands and Mines.....	Hon. N. B. BUCHANAN
Minister of Education and Municipal Affairs.....	Hon. CLAUDE D. TAYLOR
Minister of Labour.....	Hon. ARTHUR E. SKALING
Minister of Industry and Development.....	Hon. J. ROGER PICHETTE
Minister without Portfolio and President of the Executive Council.....	Hon. T. BABBITT PARLEE
Minister without Portfolio and Chairman of the New Brunswick Electric Power Commission.....	Hon. EDGAR FOURNIER

2.—Members of the Quebec Twentieth Ministry as at Dec. 1, 1952

(Party standing at latest General Election, July 16, 1952: 66 Union Nationale, 23 Liberals and 1 Independent.)

Office	Name
Premier and President of the Executive Council.....	Hon. MAURICE L. DUPLESSIS
Minister of Finance.....	Hon. ONÉSIME GAGNON
Minister of Lands and Forests and of Hydraulic Resources.....	Hon. JOHN S. BOURQUE
Minister of Health.....	Hon. J. H. ALBINY PAQUETTE
Minister of Municipal Affairs.....	Hon. BONA DUSSAULT
Minister of Colonization.....	Hon. J. D. BÉGIN
Minister without Portfolio.....	Hon. ANTONIO ELIE
Minister of Agriculture.....	Hon. LAURENT BARRÉ
Minister of Roads.....	Hon. ANTONIO TALBOT
Minister of Labour.....	Hon. ANTONIO BARRETTE
Minister of Game and Fisheries.....	Hon. CAMILLE POULIOT
Minister of Public Works.....	Hon. ROMÉO LORRAIN
Minister of Social Welfare and of Youth.....	Hon. JEAN-PAUL SAUVÉ
Minister of Trade and Commerce.....	Hon. PAUL BEAULIEU
Provincial Secretary.....	Hon. OMER CÔTÉ
Minister of Mines.....	Hon. C. DANIEL FRENCH
Solicitor General.....	Hon. ANTOINE RIVARD
Minister without Portfolio.....	Hon. TANCÈRE LABBÉ
Minister without Portfolio.....	Hon. ARTHUR LECLERC
Minister without Portfolio.....	Hon. JACQUES MIQUELON
Minister without Portfolio.....	Hon. WILFRED LABBÉ

3.—Members of the Eighth Ministry of Saskatchewan, as at Dec. 1, 1952

(Party standing at latest General Election, June 11, 1952: 42 Co-operative Commonwealth Federation, 11 Liberals.)

Office	Name
Premier, President of the Council and Minister of Co-operation and Co-operative Development.....	HON. THOMAS C. DOUGLAS
Provincial Treasurer and Minister in Charge of Bureau of Publications, Queen's Printer's Office, Saskatchewan Government Purchasing Agency, Liquor Board and Saskatchewan Government Insurance Office.....	HON. C. M. FINES
Attorney General and Minister in Charge of Local Government Board, Provincial Mediation Board and Administrator of Estates of the Mentally Incompetent's Office....	HON. J. W. CORMAN
Minister of Natural Resources.....	HON. J. H. BROCKELBANK
Minister of Highways and Transportation.....	HON. J. T. DOUGLAS
Minister of Education.....	HON. W. S. LLOYD
Minister of Social Welfare and Rehabilitation.....	HON. J. H. STURDY
Minister of Municipal Affairs.....	HON. L. F. McINTOSH
Provincial Secretary, Minister of Labour and Minister in Charge of Workmen's Compensation Board, Minimum Wage Board and Labour Relations Board.....	HON. C. C. WILLIAMS
Minister of Agriculture.....	HON. I. C. NOLLET
Minister of Public Works and Telephones and Minister in Charge of the Power Commission.....	HON. J. A. DARLING
Minister of Public Health and Minister in Charge of the Health Services Planning Commission.....	HON. T. J. BENTLEY

4.—Members of the Eighth Ministry of Alberta, as at Dec. 1, 1952

(Party standing at latest General Election, Aug. 5, 1952: 52 Social Credit, 4 Liberal, 2 Co-operative Commonwealth Federation, 2 Progressive Conservatives, 1 Independent Social Credit.)

Office	Name
Premier, Provincial Treasurer and Minister of Mines and Minerals.....	HON. E. C. MANNING
Minister of Health and Public Welfare.....	HON. W. W. CROSS
Attorney General.....	HON. LUCIEN MAYNARD
Minister of Economic Affairs and Minister of Public Works....	HON. A. J. HOOKE
Minister of Municipal Affairs and Provincial Secretary.....	HON. C. E. GERHART
Minister of Lands and Forests.....	HON. IVAN CASEY
Minister of Industries and Labour.....	HON. J. L. ROBINSON
Minister of Agriculture.....	HON. D. A. URE
Minister of Railways and Telephones and Minister of Highways	HON. G. E. TAYLOR
Minister of Education.....	HON. A. C. AALBORG

**5.—Members of the Twenty-Fifth Ministry of British Columbia
as at Dec. 1, 1952**

(Party standing at latest General Election, June 12, 1952: 19 Social Credit, 18 Co-operative Commonwealth Federation, 6 Liberal, 4 Progressive Conservative, 1 Labour.)

Office	Name
Premier and President of the Council.....	HON. WILLIAM ANDREW CECIL BENNETT
Provincial Secretary and Minister of Municipal Affairs.....	HON. WESLEY DREWETT BLACK
Attorney General.....	HON. ROBERT WILLIAM BONNER
Minister of Lands and Forests and Minister of Mines.....	HON. ROBERT EDWARD SOMMERS
Minister of Finance.....	HON. EINAR MAYNARD GUNDERSON
Minister of Agriculture.....	HON. WILLIAM KENNETH KIERNAN
Minister of Public Works.....	HON. PHILIP ARTHUR GAGLARDI
Minister of Railways, Minister of Trade and Industry and Minister of Fisheries.....	HON. WILLIAM RALPH TALBOT CHETWYND
Minister of Labour.....	HON. LYLE WICKS
Minister of Education.....	HON. TILLY J. ROLSTON
Minister of Health and Welfare.....	HON. ERIC CHARLES FITZGERALD MARTIN

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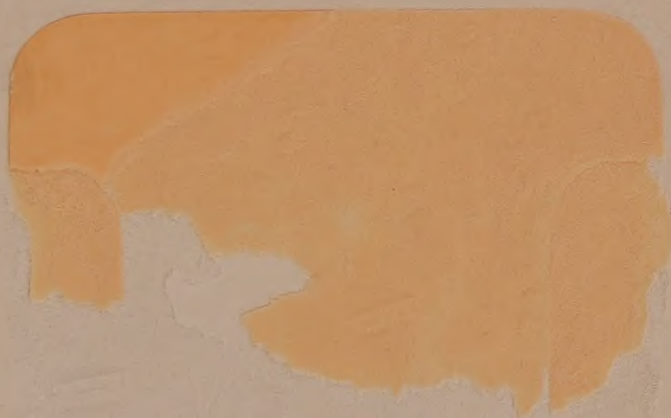
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